MAY 14, 1951

NEWS ISSUE

Electrical World

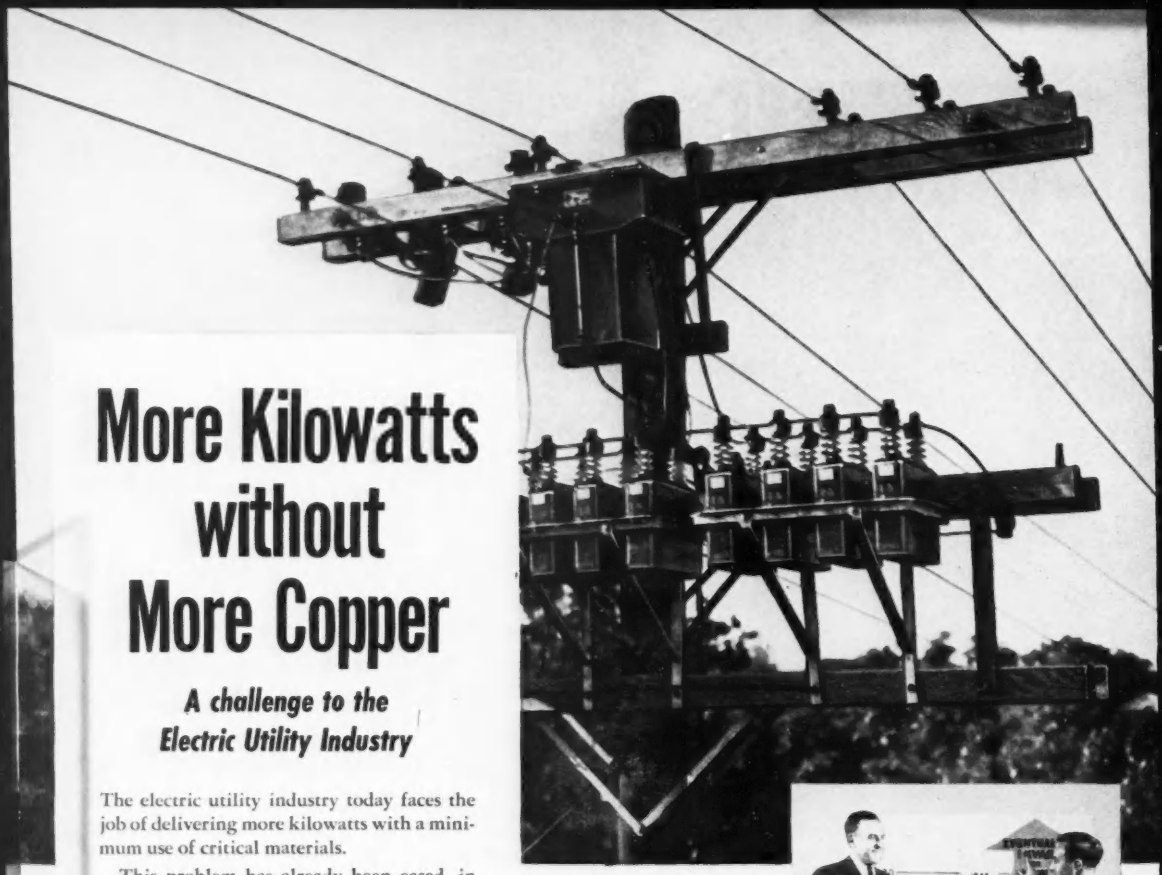
Price 35 Cents

A McGRAW-HILL PUBLICATION

Theodore A. Schlink, new president of Central Illinois Light Co

Ton-and-a-Half of Meat and 75¢ a Share . . . Page 16

Upturn in Appliance Sales? . . . Page 30



More Kilowatts without More Copper

A challenge to the Electric Utility Industry

The electric utility industry today faces the job of delivering more kilowatts with a minimum use of critical materials.

This problem has already been eased, in many instances, through the increased use of capacitors. Since 1945, for example, it is estimated that capacitor installations throughout industry have saved nearly 150,000 tons of copper. And even greater opportunities lie ahead.

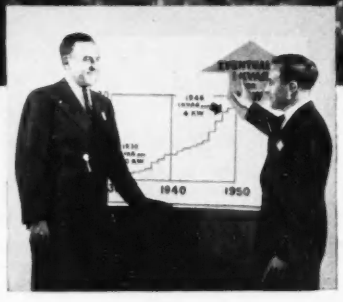
In the next three years, some 16,000,000 kilovars of capacitors could and should be added to our electrical systems—a significant part of which can be used by electric utilities. In terms of copper, this means a saving of another 150,000 tons—more than 10 per cent of all the copper used in the United States last year.

It means more copper available for building generating, transmission, and distribution equipments. It means more power for America, through conservation of natural resources, and through greater efficiency of existing facilities. General Electric Company, Schenectady 5, N. Y.

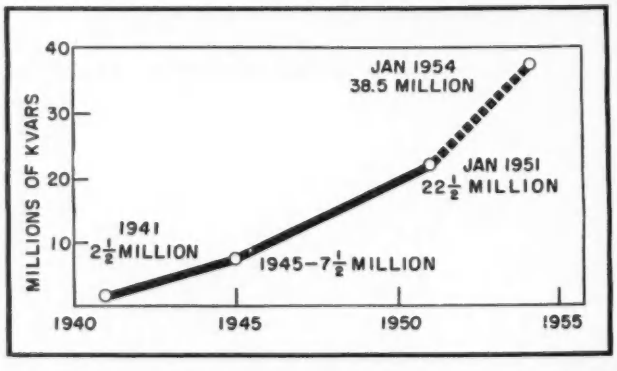
MORE POWER TO AMERICA

GENERAL ELECTRIC

301-163



A. E. Peltosalo, G-E Capacitor Application Engineer, shows W. S. Ginn, Manager of Sales, Transformer and Allied Product Divisions, the rapidly increasing use of capacitors. "On the average," he says, "4 kvar of capacitors will free 75 lb. of critical copper, while releasing more than 1 kw. of system capacity."



From a total of only 2½ million kilovars in 1941, capacitor installations increased to 22½ million kilovars by early 1951. Electric utilities are playing a strong part in this increase, which should reach 38½ million kilovars by 1954.

The Electrical Week

INDUSTRY MOBILIZATION—The Office of Price Stabilization has issued a new price regulation—CPR 30—for electrical machinery (p 4) . . . NPA will send CMP experts to 20 major cities, May 15-23, to explain how it operates (p 4) . . . Power equipment manufacturers can now extend DO-45 ratings to makers of sub-components (p 4) . . . NPA has amended M-50 its order for electric utilities (p 5) . . . REA has won the right to continue to distribute scarce metals to co-ops (p 5) . . . Depa has ordered utilities to file a new form, 4-S, reporting "minor requirements" for steel for the third quarter (p 5) . . . Industry M Orders are listed on page 5.

WASHINGTON—U. S. Department of Labor Statistics finds pay of utility workers is still above national average (p 6) . . . Cuts in Interior power agency budgets are sustained in final vote in the House (p 12).

ELSEWHERE—Additional 27 million kw capacity through 1953 is new power goal, Depa Administrator McManus tells eighth annual convention of American Public Power Association (p 11) . . . Northeastern District of American Institute of Electrical Engineers is urged to gain public support of the profession (p 13) . . . Controlled vs uncontrolled water heating proves lively topic at EEI Transmission and Distribution Committee meeting in Chicago (p 14) . . . Upturn in appliance sales expected in second half of '51 (p 30).

• • •

The Senate Appropriations Committee was kinder to the Defense Electric Power Administration than was the House. The committee voted $200,000 to Depa for the fourth quarter (fiscal '51). The House said $100,000.

REA estimates that demands on its borrowers' systems will double by 1955. Last year these systems used 25% more power than in 1949 and 20 times the amount used in 1940. But the number of systems has been increasing.

Combined production of energy by electric utilities and industrial power plants has passed 400 billion kwhr in a 12-month period for the first time in history. For the year ended March 31 the total was 401,594,394,000 kwhr, 14.2% above the same period a year earlier.

A 27-minute movie, "Corralling the Colorado," has been produced by the Bureau of Reclamation for noncommercial showings, including use by TV stations.

The Florida Senate and House of Representatives have given final approval to the Dowda bill placing private utilities in the state under regulation of the Florida Railroad and Public Utilities Commission. The bill was expected to be signed into law by the governor.

Reappointment of Securities and Exchange Commission Chairman Harry A. McDonald still leaves a vacancy on the commission—the unexpired term of Edward T. McCormick who has taken up his new duties as president of the New York Curb Exchange.

The Central Arizona Project was put on the shelf April 18 when the House Interior Committee voted 16-8 to delay action on legislation for the project until Arizona and California can get a court decision on their respective rights to Colorado River water.

Playing-It-Safe Department—Pres Juan Peron has stated that Argentina's entire electric output would be supplied by atomic energy within two years. In the meantime, he announced, the country will go ahead with construction of hydroelectric projects.

Rumor Dept—Louisville Gas & Electric Co is planning a 100,000-kw steam plant a few miles below its Paddy Run Plant on the Ohio River.

Notes From The News

Many householders in the northwestern part of Washington, D. C., woke up on the morning daylight saving time went into effect wondering what time it was. Those with electric clocks found that they agreed neither with daylight saving time nor standard time. An early morning power failure was responsible for the confusion. . . British Electric Railway Co, Vancouver, B. C., was swamped with requests when it announced it would supply men to cut down and trim trees free of charge when the trees were located near power lines. . . A swan in Yakima, Wash., Memorial Park had a brush with death in the form of a high tension wire but survived, thanks to a quick-acting passerby. The passerby administered artificial respiration to the bird when it plunged to the ground after colliding with the power line. . . Niagara Falls Power Corp plans to demolish the recently purchased plant of the Aluminum Co of America overlooking the Niagara River gorge and landscape the area at a cost of about $100,000. The job is expected to take ten months.

CHARLES F. KELLS, formerly director of NPA's Power Equipment Division, is now director of NPA's Engine and Turbine Division, a successor to PED

BONNELL W. CLARK is director of NPA's Electrical Equipment Division, which handles equipment on the transmission side of the bus bar formerly under PED

CPR 30 Covers Power Apparatus, Sets Pricing of Custom-Built Units

The Office of Price Stabilization has now issued a supplementary Ceiling Price Regulation for machinery. The order covers almost all electrical equipment including industrial power apparatus. Other equipment brought under the order includes materials, working and fabricating equipment, machine tools, and farm and electrical machinery forgings.

The new rule—CPR 30—duplicates the manufacturers order—CPR 22—in many respects. It resembles the manufacturers' regulation closely in the method it prescribes for the pricing of standard items. It permits machine makers to add increases in factory payroll and material costs to pre-Korean prices in effect during optional base periods—either April 1 through June 24, 1950 or any one of the three previous calendar quarters.

Materials costs include cutting wheels, dies, jigs, and fixtures used specifically for the production of the priced items. Labor costs include product engineering expansions and ordinary maintenance of plant and equipment. Excluded are general administrative expenses, advertising costs, and general research.

Instead of the delivered price, which other manufacturers can use, machinery firms must use published list prices.

But the production of machinery is unique in manufacturing in that its output includes a high percentage of specifically built, custom-designed items. So, in a great many cases, no base period list prices exist. CPR-30, however, has a special provision for figuring the base price of such goods.

Section 9 of the order permits the maker of a unique machine to figure his base period cost from:

1. The hourly rates paid to workers on similar equipment during the time period multiplied by the number of hours required.

2. Overtime and shift premiums that had to be paid to produce the item, calculated at base period rates.

3. The cost during the base period of the materials used.

4. Base period subcontracting costs for parts, assemblies, or units produced outside the plant.

Once the base period price has been constructed, makers of both list price and custom-built machinery simply add cost increases up to March 15, 1951, to get legal ceiling prices. But here, overtime and subcontracting cost increases can not be included.

Effective date of the order is May 28, 1951, the same day as the manufacturers order.

OPS officials realize that lack of permission to figure overtime and subcontracting costs since Korea will squeeze profit margins. They hope to provide some measure of relief in future amendments. Right now, though, the regulation will force rollbacks on practically all products.

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NPA Groups to Explain CMP in 20 Major Cities

A nationwide program of educational meetings to acquaint industry with the operation of the Controlled Materials Plan will be held May 15-23 in 20 major cities. The National Production Authority will conduct the meetings which will be sponsored by Department of Commerce field offices. Local chambers of commerce and trade groups will be asked to assist.

Teams of four men, three NPA officials and a representative of the Defense Department, will explain the application and operation of CMP and answer questions.

The cities and dates of the meetings follow: Chicago and Detroit, May 15; Houston, Minneapolis, and Philadelphia, May 16; Boston, Dallas, and Seattle, May 17; Denver, New Orleans, New York, and Portland, Ore., May 18; Cleveland, Kansas City, Mo., and San Francisco, May 21; Atlanta, May 21 and 22; Los Angeles, Pittsburgh, and St. Louis, May 22; and Richmond, May 23.

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Sub-Component Makers Can Be Extended DO-45's

National Production Authority has authorized heavy power equipment manufacturers to extend DO-45 ratings to the manufacturers of sub-components. Letters authorizing the new use were mailed to the heavy equipment makers by NPA's Engine and Turbine Division.

Use of the power equipment DO is permitted for "production materials." This is defined as "any product (including fabricated parts and sub-assemblies) or any material which will be physically incorporated" in equipment. It does not apply to manufacturing equipment or maintenance, repair, or operating supplies.

NPA's Power Equipment Division reported last month that the sub-components were posing a major bottleneck to power equipment production (EW, April 2 p 5).

NPA Amends Electric Utilities Order M-50

National Production Authority's electric utilities order M-50, (EW, April 9, p 81 and April 16, p 5) was extensively amended May 1.

Here are the new provisions:

1. Materials on hand may be used in major plant additions without specific approval of Defense Electric Power Administration until June 1 instead of May 1 as originally ordered (EW, May 7, p 80).

2. Postponed from May 1 to May 15 deadline by which outstanding orders for copper must be rated, rescheduled, or cancelled. Utilities must receive Depa approval to accept delivery of unrated orders for copper in the second quarter.

3. Minor-requirements quotas may be used in major plant additions when authorized by Depa. Use of the DO-48 (minor) for major plant additions will not entitle a utility to an increased quota for minor requirements, however.

4. Depa may establish minor-requirements quotas greater or less than those prescribed under the original order, if it desires.

5. Outstanding non-rated orders for program materials—aluminum and copper—may be rescheduled instead of cancelled.

6. Utilities may use DO-48's to order aluminum accessories for aluminum conductor ordered prior to the issuance of M-50.

7. Aluminum accessory manufacturers may not extend DO-48 or DO-48 (minor) to their suppliers where they are permitted to use DO-45's under M-44, the heavy power equipment order.

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Industry M Orders

National Production Authority has issued the following M orders of interest to the electrical industry. Orders not of interest have been omitted. Copies of orders may be secured from the National Production Authority, Washington 25, D. C., or any regional Department of Commerce office.

M-59 prohibits use of **steel strapping** on light packages shipped short distances and states 14 conditions under which it may be used, limits inventories to 45 days, permits any user to have 1,000 lb, and exempts inventories of defense agencies.

Amendments to Previous Orders

Amendment to M-2 increases May civilian **rubber** consumption to 100% of its adjusted base period and sets aside 97,100 long tons including natural latex for civilian use in May.

Amendment to M-33 requires filing of applications for allocations of all forms of **molybdenum** except metal powder, wire, rod, or sheet no later than the seventh day of the preceding month in which delivery is requested. Request for allocations of the excepted forms of molybdenum remains at 45 days.

Amendment to M-50 extends until June 1 the right of **electric utility companies** to use materials now on hand in making major plant additions without Depa approval.

CMP Regulations

Reg 1 defines rights and obligations under CMP, explains authorization of production schedules for manufacturing operations and how controlled materials will be allotted for completion of authorized production.

Reg 3 establishes relative preference status of delivery orders for controlled and other materials needed for production of essential goods.

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Must List Steel Needs

Defense Electric Power Administration has ordered electric utilities to file a new form, 4-S, reporting "minor requirements" for steel for the third quarter of 1951. Forms have been sent to the utilities and are to be filed with Depa by May 21. Depa's EO-1 has been amended to order filing of the new steel form.

REA to Continue to Allot Scarce Metals to Co-ops

Rural Electrification Administration will continue to distribute scarce metals among its borrowers.

A memorandum of agreement between Secretary of Agriculture Charles F. Brannan and Secretary of the Interior Oscar L. Chapman May 4 continued in effect for the third and succeeding quarters the authority Defense Electric Power Administration has granted REA for the current quarter (EW, April 9, p 82).

Under the agreement REA will collect information from its borrowers on their requirements of copper, aluminum, and steel and submit them in a lump sum request to Depa. Depa will include the REA figures in its requests for materials and assign REA a proportional share of the materials which are allocated for electric power.

Depa Administrator C. B. McManus has specifically delegated to REA Administrator Claude R. Wickard authority to:

1. Authorize use of program materials for major plant additions within quantities established by Depa, except that Depa may direct that materials be allowed for specific projects which have been determined to be important to defense.

2. Set minor requirements quotas for REA borrowers within limitations of National Production Authority's electric utility order, M-50.

3. Grant exemptions or adjustments in maintenance, repair, and operating supply quotas and inventory restrictions, subject to standards set up by Depa.

The delegation followed issuance of NPA Regulation 11, May 4, which authorized the subdelegation of authority by Depa to REA.

The memorandum of agreement declared that the requirements of the defense power program, "can more nearly be met by distributing critical materials in a manner which will least disturb the balance between rural and nonrural power consumers."

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Here's the Hourly Rates Electric Utilities Were Paying Their Operating Employees as of last September:[1]

Occupation	United States	New England	Middle Atlantic[2]	Border States	South-east	Great Lakes	Middle West	South-west	Mountain	Pacific
All plant workers	$1.58	$1.56	$1.63	$1.45	$1.46	$1.65	$1.49	$1.40	$1.53	$1.78
Selected Plant Occupations—Men										
Auxiliary-equipment operators	1.51	1.55	1.54	1.48	1.39	1.54	1.47	1.42	1.40	1.79
Boiler operators	1.68	1.62	1.74	1.62	1.65	1.75	1.54	1.56	1.55	1.78
District representatives	1.59	1.54	1.64	(3)	1.72	1.78	1.47	1.65	1.92	(3)
Electricians, maintenance	1.84	1.73	1.83	1.72	1.71	1.90	1.86	1.85	1.80	1.99
Groundmen	1.27	1.28	1.31	1.15	1.12	1.32	1.20	1.21	1.25	1.53
Janitors	1.17	1.23	1.27	1.01	.89	1.29	1.08	.90	1.08	1.32
Linemen, journeymen	1.82	1.75	1.89	1.68	1.73	1.80	1.67	1.81	1.82	2.01
Load dispatchers	2.19	2.33	2.28	2.16	2.10	2.22	1.95	1.94	1.92	2.36
Machinists, maintenance	1.86	1.68	1.90	1.73	1.86	1.94	1.83	1.67	1.71	1.94
Maintenance men, general utility	1.68	1.60	1.76	1.60	1.65	1.64	1.43	(3)	1.69	1.71
Mechanics, automotive	1.70	1.59	1.68	1.64	1.75	1 73	1.70	1.63	(3)	1.87
Mechanics, maintenance	1.75	1.73	1.84	1.71	1.70	1.73	1.65	1.72	1.71	1.84
Metermen, class A	1.79	1.61	1.88	1.74	1.21	1.81	1.68	1.77	1.76	1.97
Metermen, class B	1.59	1.48	1.61	1.56	1.56	1.62	1.49	1.53	1.53	1.89
Meter readers	1.36	1.29	1.36	1.36	1.30	1.42	1.31	1.14	1.30	1.53
Patrolmen	1.61	1.46	1.62	(3)	1.73	1.61	1.65	1.32	(3)	1.85
Servicemen, appliance	1.64	1.61	1.60	1.50	(3)	1.74	1.51	1.65	(3)	1.82
Stock clerks	1.42	1.39	1.44	1.34	1.42	1.48	1.32	1.21	1.46	1.65
Substation operators	1.73	1.66	1.72	1.69	(3)	1.85	1.68	1.41	1.67	(3)
Switchboard operators, class A	1.80	1.60	1.89	1.80	1.67	1.90	1.73	1.77	1.73	1.98
Switchboard operators, class B	1.53	1.41	1.76	1.56	1.39	1.57	1.67	(3)	(3)	1.81
Troublemen	1.87	1.89	1.95	1.71	1.90	1.94	1.77	1.71	1.77	2.06
Truck drivers	1.48	1.45	1.61	1.30	1.23	1.53	1.48	(3)	1.45	1.63
Truck drivers, groundmen	1.44	1.45	1.51	(3)	1.36	1.49	1.35	1.34	(3)	1.69
Turbine operators	1.67	1.60	1.69	(3)	1.65	1.79	1.49	1.71	1.73	1.82
Watch engineers	2.10	2 10	2.32	2 31	1.95	2.21	1.80	1.93	1.92	2.20
Watchmen	1.24	1.37	1.27	1.13	1.10	1.29	1.22	1.01	(3)	1.34

[1] Excludes premium pay for overtime and night work.
[2] One large firm in the Middle Atlantic region was not included in the survey, and no adjustment was made for its omission.
[3] Insufficient data to permit an average.
Source: U. S. Bureau of Labor Statistics.

Utility Pay Still Above U.S. Average

Plant Workers Were Earning $1.58 an Hour as of September 1950, Survey by Bureau of Labor Statistics Shows; Wage Rise Continues

Plant workers employed by privately operated electric utilities averaged $1.58 an hour on a straight-time basis in September 1950, according to the latest report of the U. S. Bureau of Labor Statistics. This was about 8¢ above the national average for hourly workers.

A number of new wage contracts have been negotiated since that time, pushing the average up considerably. Earnings in the power industry have kept up with the cost of living since Korea, if you include overtime. Living costs are expected to go up another 8% before the year is over, so workers will undoubtedly press for additional increases (EW, April 30 p 30).

Three years ago, plant employees were earning $1.35 an hour, compared with a national average of $1.29 (EW, Nov. 13, 1948, p 5). Today's figures are from 25 to 30¢ higher than the average.

Last September the Pacific Coast Region was paying the highest rate, with plant workers averaging $1.78. Lowest rate, $1.40, was paid in the Southwest. The Pacific, Great Lakes, and Middle Atlantic Regions paid more than the national average, while the Southwest, Southeast, Middle West, Mountain, Border States, and New England Regions paid less than the average.

Individual rates for plant workers ranged from the 75¢ legal minimum to more than $2.50. The earnings of the middle 50% fell within the range from $1.35 to $1.82. Less than 4% earned less than $1 an hour while nearly 10% of the workers earned $2 or more.

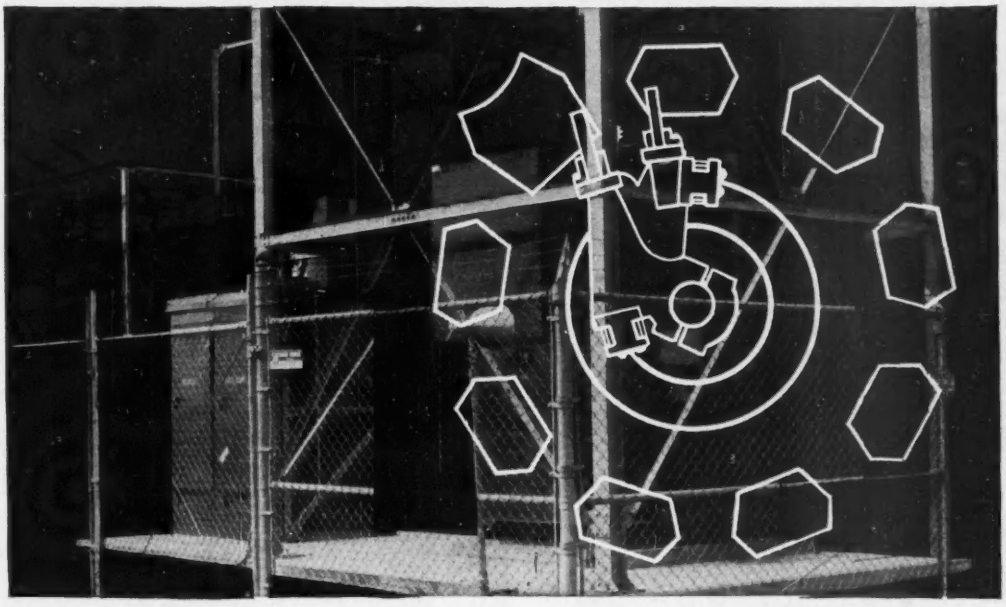
Journeymen linemen, most important numerically of the occupations studied, averaged $1.82 an hour. Groundmen, another large group, averaged $1.27. Load dispatchers had the highest rate, $2.19, while janitors, at $1.17, had the lowest. Other important occupations and their averages included meter readers, $1.36; substation operators, $1.73; boiler operators, $1.68; and troublemen, $1.87.

The September survey showed most office jobs in the industry were held by women. Comparatively few in numbers, stenographers required to take technical dictation received an average hourly wage of $1.52, highest of the office occupations studied. General stenographers, numerically the largest group, averaged $1.20. Other important groups included cashiers at $1.13, accounting clerks at $1.17, and clerk-typists at $1.04.

The survey included privately operated utilities employing more than 100 workers. Nearly all those studied were on a 40-hour week schedule. All companies provided some form of insurance benefits and nearly all made retirement pension plans available to employees. Vacations with pay, varying from one to two weeks, were granted all employees after a year's service.

ELIMINATE ALL ARCING

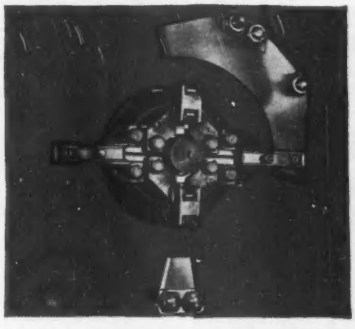
ON TAP SELECTOR SWITCH CONTACTS WITH . . .



. . . MOLONEY LOAD TAP CHANGERS PROVIDED ON FEEDER VOLTAGE REGULATORS, REGULATING TRANSFORMERS, LOAD RATIO CONTROL TRANSFORMERS

All Moloney Feeder Voltage Regulators, Regulating Transformers and Load Ratio Control Transformers are provided with Load Tap Changers which feature a load transfer switch to relieve the tap selector switch of all arcing duties. The load transfer switch has only four stationary contact tips per phase as compared with eighteen on the tap selector switch. This arrangement not only reduces the number of contacts subject to arc erosion, but also permits longer arc clearances to assure positive break of the arc. Liberal clearances of current carrying parts result in maximum capacity of the regulating equipment with minimum physical size. The load transfer switch, which is the only switch required to transfer load current, is provided with accelerating springs and is driven by Geneva gears. This assures quick break of the arc.

This is but one of the many features of the Moloney Load Tap Changer. This same sound basic construction is found in the regulating apparatus on which the tap changer is used.



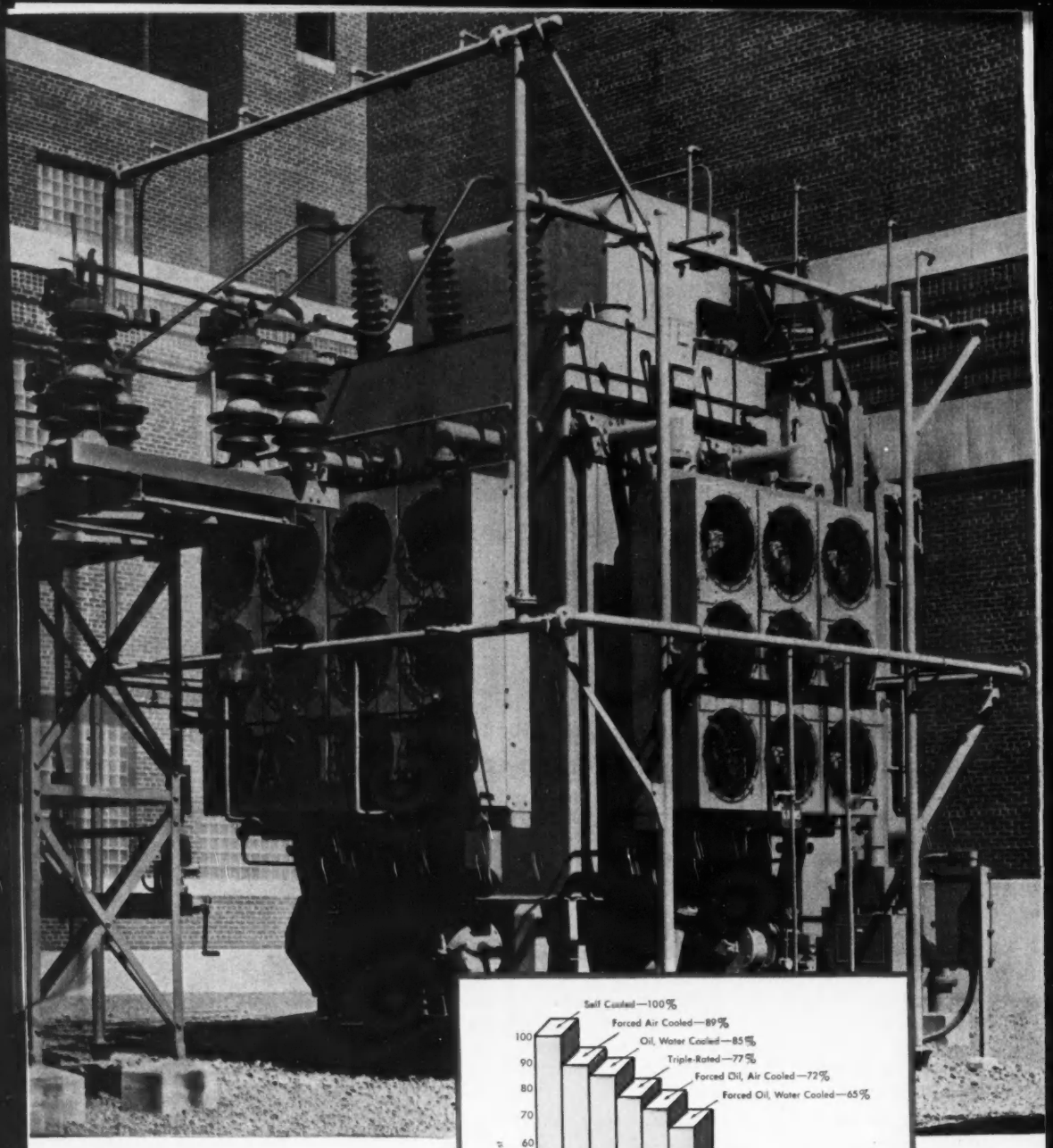
Liberal clearances prevent establishment of an arc between adjacent current carrying contacts of the load transfer switch. Special alloy arcing tips prevent damage to the switch contacts as they are opened or closed.

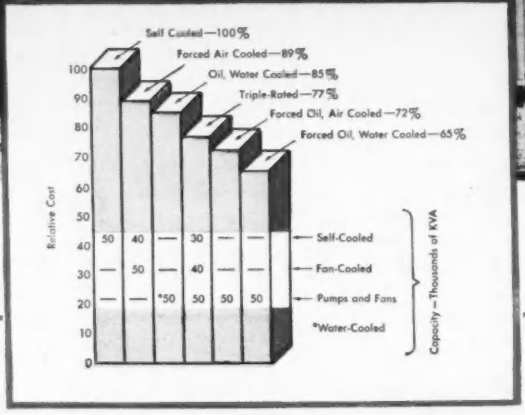
MES1-10

MOLONEY ELECTRIC COMPANY

Manufacturers of Power Transformers • Distribution Transformers • Load Ratio Control Transformers • Step Voltage Regulators • Unit Substations

SALES OFFICES IN ALL PRINCIPAL CITIES • FACTORIES AT ST. LOUIS, MO. AND TORONTO, ONT., CANADA





Cost and performance comparison of 50,000 kva, 115 kv, three-phase transformers for different methods of cooling.

ADVANCED COOLING TECHNIQUES

Cut Capital Investment 15% to 35%

Three-phase power transformers provide substantial savings over single-phase banks. That's well recognized. In many instances, the savings run as high as 28%.

But modern cooling, applied to three-phase transformers can bring even greater savings.

Consider the cost of a three-phase, self-cooled transformer as a 100% base. Then a modern external water cooler (OW) permits a reduction of 15%. The use of forced-oil, forced-air cooling (FOA) can bring a cut of 28%. And, for some applications, a combination of forced-oil cooling *and* external water cooling (FOW) can effect a total savings of 35%.

Thus, through application of advanced cooling techniques alone, substantial cuts can be made in the cost of three-phase transformers... savings that can be brought to 50% and more, as compared to the cost of single-phase transformer banks.

WESTINGHOUSE POWER TRANSFORMERS are smaller and lighter per kva than any other transformer on the market. As a result, you can expect these additional savings:

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2. **Smaller foundations.**
3. **Smaller superstructures.**
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5. **Lower maintenance expense... rugged, all-welded construction plus smaller size.**

Yet all this is merely a portion of the savings possible with Westinghouse Transformers. Our representatives will be glad to discuss additional features that mean big savings to you. Phone today, or write: Westinghouse Electric Corporation, P. O. Box No. 868, Pittsburgh 30, Penna.

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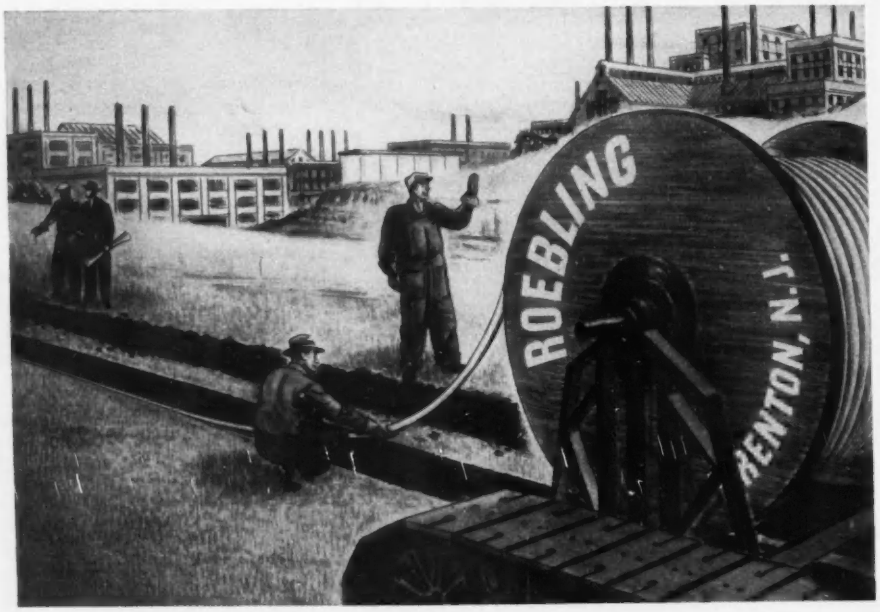
Saves the cost of duct systems

FOR GENERAL POWER SUPPLY and distribution circuits, Roebling Parkway Cable is outstandingly efficient and economical. This cable is laid directly in the ground, in a shallow two- or three-foot trench. And after it's installed, Roebling Parkway will give you thoroughly dependable, uninterrupted service — always.

Roebling Parkway Cable is made in both single and multiple conductor types — either solid or stranded — in a range from 600 to 5000 volts. Both types are furnished with metallic armor or with a non-metallic, ROEPRENE sheath which affords full physical protection.

Large quantities of Roebling's complete line of electrical wires and cables are now required in the national rearmament program. You can count on the Roebling organization and Roebling distributors, however, for the best deliveries and service that they can give. John A. Roebling's Sons Company, Trenton 2, New Jersey.



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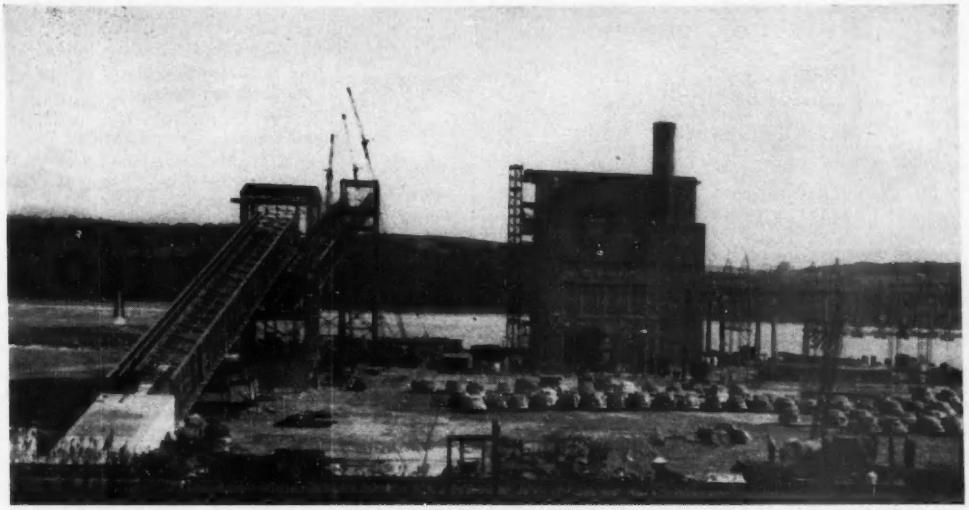


DANSKAMMER PLANT of Central Hudson Gas & Electric Co, now more than half completed, will be in full operation by January, 1952. The 60,000-kw steam station is on west bank of Hudson River north of Newburgh, N. Y. Through a high voltage submarine cable laid by the company in 1948 it will also be able to supply power to customers on the east bank

Additional 27 Million Kw by '54 Is New Goal, Depa Head Tells APPA

New capacity planned through 1953 now totals 27 million kw. This newest —and largest—estimate of power expansion was made by Administrator Clifford B. McManus of Defense Electric Power Administration at the eighth annual convention of American Public Power Association in Chattanooga May 7-9.

Expansion from 1948 through 1950 added 17.5 million kw, McManus told more than 500 members present. Load growth, which has been at a rate of about 6% per year, will double to 12% per year during 1951-53, he predicted.

"Even with this expansion program as planned," the Depa administrator warned, "the power supply situation will generally be tight in 1951 and '52 even if installations are made on schedule."

States R. Finley, retiring APPA president, told the convention, "Public-owned utilities have and will give wholehearted cooperation in making the program as laid out by Depa work. In this it is not a question who owns the facilities, and this should not be allowed to creep into consideration of the matter."

Noting attacks on public power as a "socialistic scheme," Finley said many private electric utilities are seeking government aid for their expansion programs in the form of accelerated amortization.

"In many cases, they have a good case in conformity with the present law, and I comment upon the matter only to observe that the shoe is not always upon the other fellow's foot," he said.

Finley praised the work of President Truman's Water Resources Policy Commission and said criticism of the report by "Electrical World" was "most unjust and most uncalled for."

A member of the commission, Samuel B. Morris, Los Angeles Department of Water and Power, outlined WRPC findings that led up to the report including an APPA report on water policy.

"Most river basins," he said, "are relatively undeveloped. There is still time to make the necessary plans and develop coordinated programs."

5-Mi Tunnel Under City to Supply Niagara Plant

A concrete tunnel 45 ft in diameter will be installed under Niagara Falls, Ont., to carry water from above Horseshoe Falls to a new generating station to be built near Queenston on the lower Niagara River.

From the intake, the tunnel will run 5½ mi, coming to the surface on the opposite side of the city near the Niagara Gorge whirlpool. An open cut canal will carry the water an additional 2½ miles to the plant.

Near the existing Queenston-Chippawa Plant, the station will have a rate capacity of 600,000 hp. It is being built by Hydro-Electric Power Commission of Ontario. Three of its six units are expected to go on the line by 1954.

The tunnel will cut five miles from the canal route around the city used to carry water from an intake at Chippawa, above the falls, to the Queenston-Chippawa Station. That plant, opened in 1922, is the only one now making use of the maximum drop of 326 feet between Lakes Erie and Ontario. The new installation will also take advantage of the maximum head.

A sister station, of similar capacity, may be built about five years after the tunnel-supplied plant is completed.

1951 PUAA NATIONAL AWARDS BOOK is checked by C. Fred Westin, center, Better Copy Contest chairman and assistant advertising director, Public Service Electric & Gas Co, Newark. Richard A. Cross and Miss Ruth Kudrnac of Public Service look on. Awards for 175 advertisements reproduced will be made at annual Public Utilities Advertising Association convention in New York May 18. Book may be ordered from Westin at $10 for first copy, $7.50 each additional copy

House Votes to Sustain Cuts Made in Interior Power Agency Budgets

The House of Representatives has voted to sustain sharp cuts in funds for all Interior power agencies.

As finally approved by the House, the bill retained cuts made by its appropriations committee (EW, April 30, p 6). Several amendments cut the appropriations still further.

One of them provided that Bureau of Reclamation may not construct transmission lines in areas where "wheeling" service contracts have been entered into. This prohibits construction of lines in territories served by Pacific Gas & Electric Co, Montana Power Co, Idaho Power Co, and Public Service Co of Colorado, among others. This amendment, introduced by Rep Kenneth Keating, Republican of New York, was approved by a vote of 226-165.

An amendment by Rep John Taber, New York Republican, to reduce Reclamation construction and rehabilitation funds by $10 million was approved 237-160.

Southeastern Power Administration's $3.4-million construction fund was lost when the House approved, 247-149, an amendment by Rep J. Vaughn Gary, Virginia Democrat. Most of the funds were scheduled to be spent on the controversial line between Buggs Island and the Langley, Va., laboratory of the National Advisory Committee for Aeronautics.

Southwestern Power Administration construction funds were cut $500,000 and use of funds for construction of the Western Missouri Project was prohibited. The fund drop came on a vote of 222-172 approving an amendment by Rep Oren Harris, Arkansas Democrat, while the Western Missouri limitation, in an amendment by Rep Dewey Short, Missouri Republican, was adopted 247-152.

Bonneville Power Administration construction funds were cut $5.5 million when the House approved, 225-167, an amendment by Rep Gerald R. Ford, Jr, Michigan Republican.

Other House amendments to the bill permitted the filling of only 25% of the vacancies which occur in the department during fiscal 1952, with a few exceptions, and prohibited use of funds for publicity or propaganda purposes not authorized by the Congress.

The bill has been sent to the Senate. The Interior subcommittee of the Senate Appropriations Committee began hearings on it last week.

•

Sherman Act Invalidates 3-Party Power Contract

A three-party contract among Pennsylvania Water & Power Co, Consolidated Gas, Electric Light & Power Co, and Safe Harbor Water Power Co has been invalidated in Baltimore by Federal Judge Albert V. Bryan.

Judge Bryan, who presided at the trial, ruled the 1931 contract violated the Sherman Anti-Trust Act and Pennsylvania law by reducing Safe Harbor "from a public utility to an impotent agency of the other parties."

The contract involved sale of power generated by Safe Harbor at its plant on the Susquehanna River exclusively to Penn Water and Consolidated. Each of the recipients owns 50% of the voting stock of Safe Harbor.

The judge ruled the agreement invested Penn Water and Consolidated "with the absolute power to restrict the other in the use and enjoyment of its rightful entitlement in Safe Harbor's production, as well as to restrict Safe Harbor in its freedom of contract and action generally."

•

Missouri Anti-Strike Act Is Ruled Unconstitutional

Missouri's King-Thompson Act prohibiting strikes in public utilities has been ruled unconstitutional by Attorney General J. E. Taylor.

Taylor's ruling, requested by the Missouri House of Representatives, was made as 300 drivers of Missouri Pacific Bus Lines went on strike over wage demands. It was based on the U. S. Supreme Court's recent decision declaring the Wisconsin public utilities anti-strike law to be in conflict with the federal Taft-Hartley Act.

Since the Missouri law was enacted in 1947, the governor has used it twice to seize strike-threatened transportation systems in St. Louis and Kansas City.

ROUND TABLE MEMBERS J. L. Haley, Niagara Mohawk Power Corp; P. F. O'Neill, moderator, Niagara Mohawk; N. L. Freeman, New York State Engineering Board of Examiners; L. A. Russ, Westinghouse Electric Corp; C. B. McEachron, General Electric Co; and Dr C. L. Dawes, Harvard University, relax after discussing the topic, "The Assignment and Development of the Engineer as a Professional Man"

Gain Public Support of Engineering, Northeastern AIEE Meeting Urged

The public must be told that engineering is the real basis of our entire economy and as such its growth must be continued and encouraged, according to A. C. Monteith, vice president, Westinghouse Electric Corp, who spoke at the Northeastern District Meeting of the American Institute of Electrical Engineers at Syracuse, May 2-4. He said it is up to engineering societies and engineers individually to put this message across.

Monteith said the Engineering Joint Council has a plan which will (1) generate interest in the schools and with the public regarding engineering as a profession; (2) get industry managements to use their engineering groups properly and efficiently; and (3) bring the government to appreciate the importance of engineering to the country and to reflect this appreciation in future manpower regulations and bills.

The Engineering Council for Professional Development has another program, he said, aimed at (1) getting engineering schools to teach both technological and cultural backgrounds to students, leaving to industry the teaching of engineering specialities; (2) prompting men in engineering to continue their education after completing formal schooling; (3) interesting engineers in becoming active in community affairs; and (4) teaching and encouraging self-appraisal among engineering personnel to best use their abilities.

"The Assignment and Development of the Engineer as a Professional Man" was the subject of a round table discussion. John L. Haley, vice president, Niagara Mohawk Power Corp, said an engineer, to be qualified as a professional man, (1) must be an educated man in the broad sense; (2) must be a loyal American and a good citizen and must assume leadership in government and community life; and (3) must be worthy of recognition of professional standing by unselfish service to the public.

Carl B. McEachron, assistant to the manager, Technical Personnel Division, General Electric Co, pointed out that industry in general appraises engineering graduates for the ability to get the right things done at the right time and in an efficient manner. As proof of the value management places on this ability, he stated that two large merchantile establishments in New York City are hiring engineers as buyers in place of liberal arts personnel. He cautioned that engineering is heading for trouble because the individual in engineering is thinking of the rights and privileges associated with professional standing rather than the service he must render to the public.

New 3-Way Symposium Held on Street Lighting

The first symposium on street lighting at which utility, fixture manufacturing, and cable manufacturing representatives were present was held this month at the Northwestern District Meeting of American Institute of Electrical Engineers in Syracuse, N. Y.

Speaking for the utilities, D. A. Gaffney, Niagara Mohawk Power Corp, urged a maximum height be established for street lighting units. He said the cost of maintenance equipment is such that new apparatus cannot be purchased every time new and higher-mounted lighting equipment is installed. Gaffney pointed out the need for a few basic designs of supports, with good pole plates and scrolls or braces to conserve pole space, to replace the several designs now available. He urged formation of a national committee to coordinate preferences, use and standardization of street lighting equipment among the various cable, luminaire, and support committees now in existence.

Because of the present high cost of installing street lighting systems, Frank J. Schmitt, Rochester Gas & Electric Corp, suggested the use of aerial wire on ornamental poles be reconsidered. As a further step in cost reduction, L. F. Heckmann, Union Metal Manufacturing Co, suggested that users of street lighting poles standardize their specifications so that poles could be mass-produced.

Nyet Interest

Now the Russian people can buy three hydro plants and enter a lottery at the same time—all for 30 billion rubles. The Council of Ministers has announced a public loan, largest in Soviet history, has been floated for that amount to finance stations on the Volga and Dnieper. Instead of paying a fixed rate on the bonds, the government will pay interest in the form of a lottery, with a number of winners being drawn each year. Biggest "return" will be 25,000 rubles on a 100-ruble bond — if the subscriber is lucky. The 65% who are not, says the decree, will get their money back at face value in 20 years.

RETIRING CHAIRMAN J. A. McCormack of EEI T&D Committee, left, with R. J. Palmer, Detroit Edison Co, and F. A. Ashbaugh, West Penn Power Co, at Chicago panel. McCormack was succeeded by J. A. Pulsford, Public Service Electric & Gas Co

Uncontrolled Water Heating Gains a Slight Edge at EEI T&D Meeting

Controlled vs uncontrolled water heating sparked a lively discussion at the meeting of the Transmission and Distribution Committee of Edison Electric Institute in Chicago May 1-2, following papers on the subject by H. F. G. Main and Constantine Bary. Uncontrolled heating appeared to have a slight edge.

Main, Potomac Electric Power Co, pointed out that on a system such as his, where residential and commercial districts are intermingled, the uncontrolled water heater does not appreciably affect the peak load.

Bary, Philadelphia Electric Co, reporting on strictly residential areas, related the water heater load to the range load. He said the most desirable condition occurs where there are both and the water heater load is controlled.

In the discussion it was pointed out that growing use of automatic laundry equipment was influencing water heater load. Since customers are likely to want to do the laundry at various hours, they are less inclined to be satisfied with controlled water heater operation. It was also pointed out that if water heater loads were switched on too early in the evening, low voltage might result, affecting television reception.

Domestic appliances are largely responsible for the high use of electricity on the farm, according to a paper prepared jointly by J. H. Thomas, Unievrsity of Illinois; R. K. Dallas, Central Illinois Light Co; and J. N. Gosinski, Commonwealth Associates, and presented by H. R. Wall, Commonwealth Associates. Studies of saturations and intentions of customers showed farm-chore type of appliances will constitute most of the future load growth.

•

NECA Appoints Carlson to Fill Unexpired Term

Erne C. Carlson, head of Carlson Electric Co, Yougstown, Ohio, has been appointed president of the National Electrical Contractors Association to fill the unexpired term of Edward Vanderlinde, deceased.

The regular NECA presidential election will be held in Washington in October.

Carlson was elected to the NECA executive committee in 1936. Since 1938 he has served as chairman of its Labor Relations Committee and since 1939 as chairman of the International Brotherhood of Electrical Workers Employers Section. He is president of the Penn-Ohio Chapter of NECA.

Oklahoma Utility Orders 15,000-Kw Gas Turbine

The largest gas turbine generator in the country has been ordered from Westinghouse Electric Corp by Public Service Co of Oklahoma for installation in the Bartlesville area of Oklahoma.

Rated at 15,000 kw, the unit is scheduled for delivery in about three years. It will be fueled by natural gas from the Oklahoma fields.

The 700,000 lb turbogenerator installation will consist of a gas turbine driving a hydrogen-cooled generator. The gas turbine will consist of high and low pressure turbines driving, respectively, high and low pressure compressors. The high pressure turbine will also drive the generator. Intercoolers will reduce the temperature of the compressed air between stages of compression, and a regenerator will apply exhaust-gas heat to the air before it enters the combustor, to reduce consumption of fuel.

Rotational speed of the turbine will be 3,600 rpm. It will operate at a temperature of 1,350 degrees.

•

Shift to Defense Will End 2 TVA Offices June 1

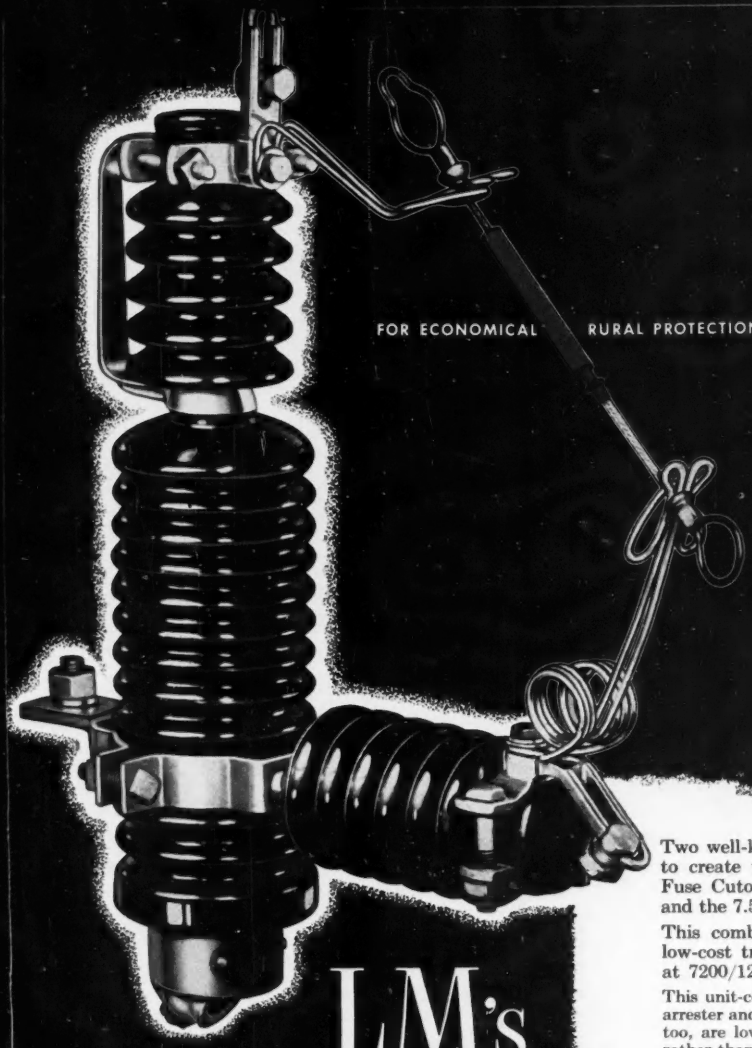
Tennessee Valley Authority will discontinue the offices of Neil Bass, chief construction engineer, and John P. Ferris, manager of reservoir and community relations, June 1 as the authority shifts emphasis to production of electric power for defense.

Agencies which report to these offices will report directly to George F. Gant, general manager. Bass will become Gant's assistant and will maintain liaison with agencies concerned with TVA conservation projects. Ferris will become chief of regional development studies.

•

Break Ground at Etiwanda

Southern California Edison Co broke ground at Etiwanda, Cal., recently for its third major steam-electric generating plant. Scheduled for completion in December 1952, the $35-million plant will have an initial capacity of 250,000 kw. Either gas or oil will be used for fuel, with provision for use of pulverized coal, should this become necessary.



FOR ECONOMICAL RURAL PROTECTION TODAY

LM's Combination Arrester and Cutout

Saves 20%

Two well-known L-M products have been combined to create the Combination Lightning Arrester and Fuse Cutout—the 9 kv "PF-3" Expulsion Arrester and the 7.5 kv Open-Link "STF" Cutout.

This combination is designed to provide complete low-cost transformer protection on rural lines rated at 7200/12470 and 7620/13200 volts grounded wye.

This unit-combination costs 20% less than the same size arrester and cutout ordered separately. Installation costs, too, are lower, since it is necessary to mount only one, rather than two, units.

The PF-3 arrester has a rated discharge capacity of 65,000 amps, meets all AIEE and NEMA standards. The cutout has a continuous current carrying capacity of 50 amps and 600-amp interrupting capacity. The fusible link is contained in an arc-extinguishing sleeve which confines the arc, assuring successful clearing of a fault. Constant tension on the link assures rapid separation of link parts with no possibility of re-establishing the arc.

Re-fusing is easy and safe. With hot stick in fuse link top loop, the lower end of the link is hooked into the lower contact. The top end of the link is then pulled up and seated in the upper contact.

This combination is REA-accepted.

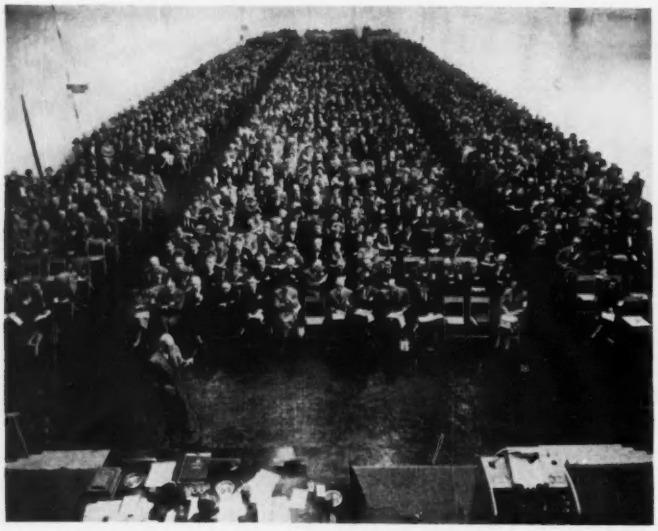
For details ask the L-M Field Engineer, or write Line Material Company, Milwaukee 1, Wis. (A McGraw Electric Company Division).

LM

LINE MATERIAL... Protective Equipment

Complete Coordinated Equipment for Distribution Today

7469



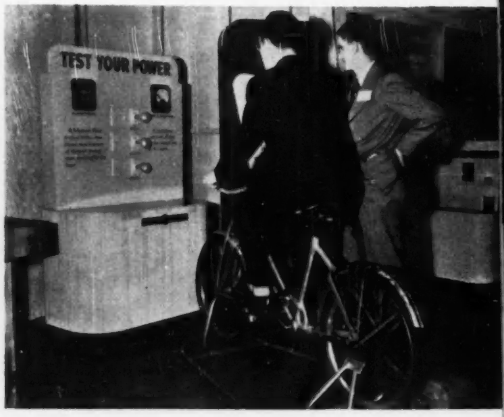
GE STOCKHOLDERS, 1,800 of them, attend the annual meeting in Schenectady

YOUNGEST visitor gets her identifying badge

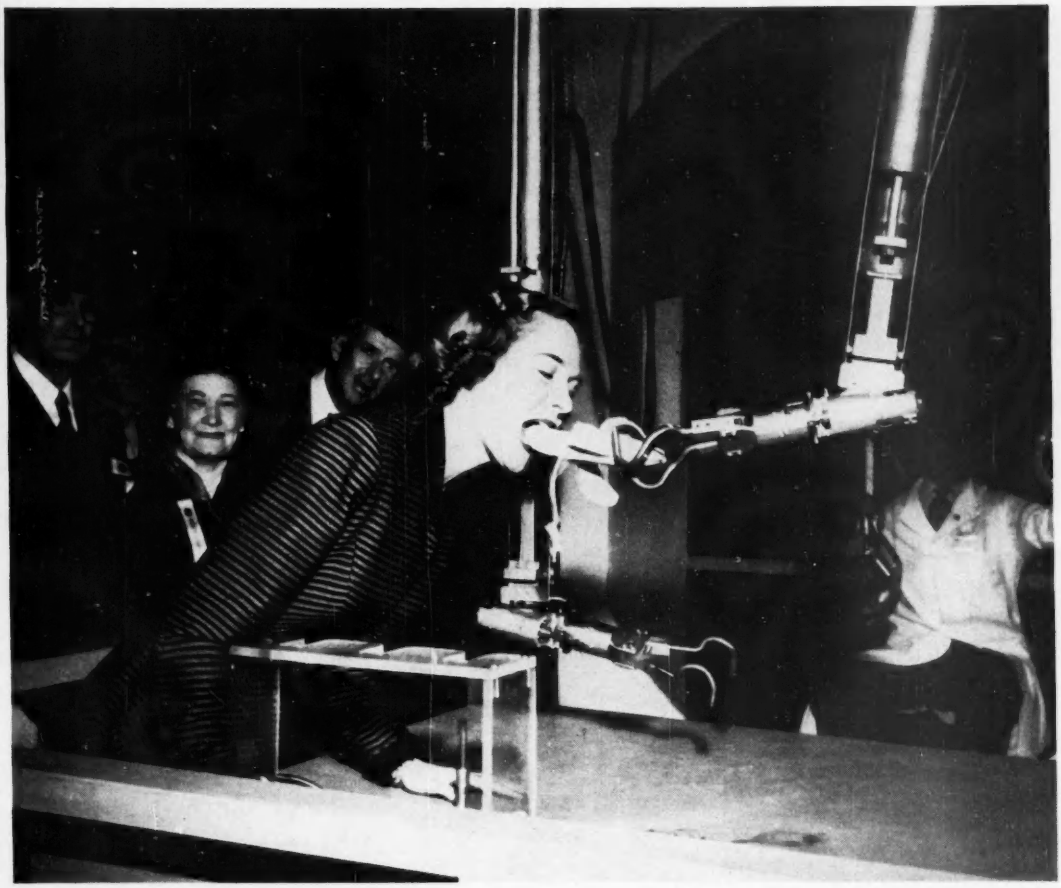
Ton-and-a-Half of Meat and 75c a Share

General Electric Co threw a wing-ding of a stockholders' meeting at Schenectady recently in a huge building in which it had made turbines for half a century. More than 1,800 part-owners and their families turned out to hear Pres Ralph J. Cordiner tell them the company will have to spend $350 million on expansion in the next four years to meet national defense and civilian production needs. Then he sent them off to a mammoth luncheon on another floor with the word that GE would pay them 75¢ a share for the first quarter of '51, 15¢ more than for the same period last year. At a half-mile of tables the stockholders ate a ton-and-a-half of cold meat and a ton-and-a-quarter of potato salad and drank 200 gallons of coffee. Then they toured their plant in 40 buses and wound up at a products display with enough gee-whiz exhibits to keep them at 1,000 kv the rest of the day.

TV CAMERA-SET mockup gives stockholder couple a video thrill



BICYCLE generator turns share-owner power to electric power



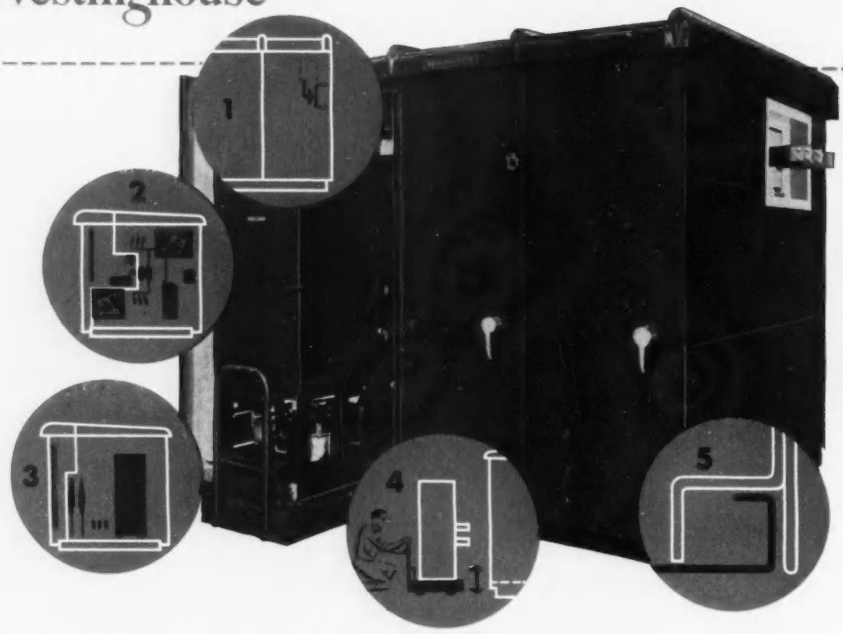
MECHANICAL HANDS that handle radio-active materials peel banana for comely shareholder at display set up for the meeting

SLICING MACHINE turns out 1.5 tons of meat for luncheon

AT LUNCHEON, Pres Cordiner gets chance to meet stockholders

YOU CAN BE **SURE**.. IF IT'S

Westinghouse



Westinghouse Outdoor Switchgear gives you 5 NEW OPERATING ADVANTAGES

Westinghouse brings you redesigned 5-Kv Outdoor Metal-Clad Switchgear with improvements that add up to time and cost savings in installation, operation and maintenance.

Greater accessibility of operating parts . . . better ventilation and weatherproofing . . . improved appearance are among its advantages that give you more for your switchgear dollar.

1. Control knife switches are in easy-to-reach position.
2. Auxiliary compartments provide better equipment access. More headroom makes inspection and maintenance easier.
3. Enclosure makes possible use of two potheads for two 3-conductor cables without sacrificing the full-length instrument panel. Adequate clearance is afforded behind the panel at the pothead elevation for semi-flush Flexitest cases and average-depth Type W switches.
4. Platform height is adjustable. Transport truck provides adjustability for slight variations in pad level.
5. Newly designed doors with flanged edges provide extra rigidity and improved weather seal.

Get complete facts from your nearby Westinghouse representative, or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.

★ ★ ★

See "Electrical Proving Ground" . . . the dramatic story of the Westinghouse High Power Laboratory in sound and color motion picture. For details, write Westinghouse Film Division, Box 868, Pittsburgh 30, Pennsylvania. J-60743

Westinghouse
METAL-CLAD
SWITCHGEAR

Power Factions Reach Truce in South Carolina

Agreeing that the state's power industry must cooperate to meet the needs of defense industries, warring public and private power interests in South Carolina have arrived at a truce.

The opposing factions were particularly concerned with supplying the power needs of the Savannah River Valley Atomic Energy Plant, now under construction. A joint statement by directors of the state's Santee-Cooper Hydroelectric Project and South Carolina Electric & Gas Co said:

"A coordinating committee from all the power industry in the state will be named to plan complete cooperation and to see that all of us do our part for defense industries."

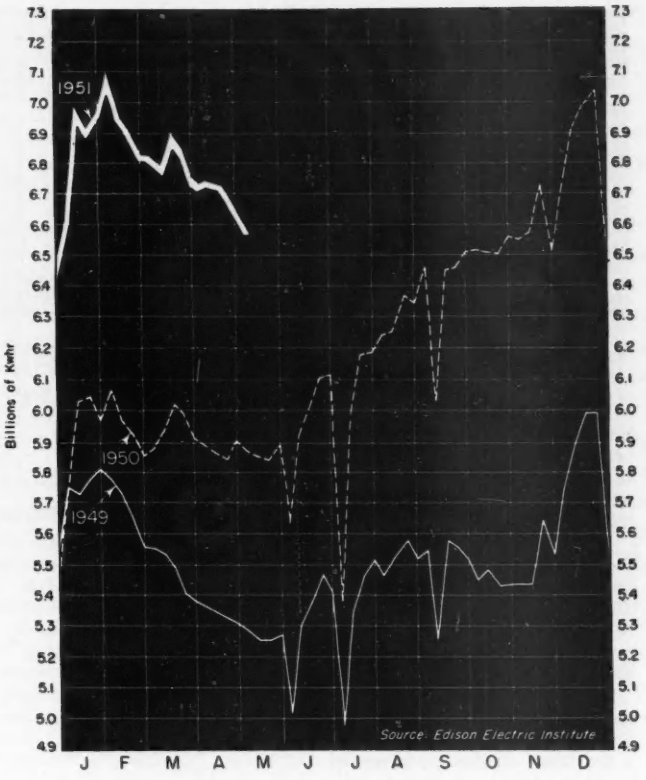
SCE&G and Santee-Cooper fell out last year because the state agency backed a Rural Electrification Administration transmission line loan to Central Electric Power Cooperative. SCE&G claimed the lines duplicated its own in the southern half of the state and were therefore unnecessary.

•

Co-op Leases 3 Dams from Wisconsin Utility

Dairyland Power Cooperative, La Crosse, Wis., has leased three hydroelectric dams on the Flambeau River from Lake Superior District Power Co.

The dams are at Thornapple, Port Arthur, and Ladysmith, downstream from Dairyland's large new hydro plant five miles northeast of Ladysmith. The 35-year lease gives the co-op control of four of the five Flambeau dams. Lake Superior will retain control of the Big Falls plant, seven miles upstream from the co-op plant.



Output Week Ended May 5—6,559,700,000 Kwhr

Weekly Output, Millions Kwhr

1951	1950	1949
May 5 6,560	May 6 5,872	May 7, 5,284
Apr 28 6,674	Apr 29 5,902	Apr 30 5,304
Apr 21 6,730	Apr 22 5,846	Apr 23 5,326
Apr 14 6,747	Apr 15 5,863	Apr 16 5,343
Apr 7 6,736	Apr 8 5,898	Apr 9 5,360
Mar 31 6,767	Apr 1 5,912	Apr 2 5,378
Mar 24 6,848	Mar 25 5,993	Mar 26 5,404
Mar 17 6,903	Mar 18 6,015	Mar 19 5,496
Mar 10 6,795	Mar 11 5,937	Mar 12 5,531
Mar 3 6,822	Mar 4 5,879	Mar 5 5,552

Percent Change from Previous Year

	May 5	Apr 28	Apr 21
New England	+10.1	+11.1	+12.3
Mid-Atlantic	+ 9.5	+10.2	+13.6
Central Industrial	+12.6	+13.7	+16.7
West Central	+ 9.7	+12.4	+13.2
Southeast	+14.4	+14.3	+14.4
South Central	+17.9	+22.4	+22.9
Rocky Mountain	+ 8.8	+ 6.7	+ 7.8
Pacific Coast	+ 9.4	+13.2	+15.9
Total United States	+11.7	+13.1	+15.1

MEETINGS

Interstate Power Club of New York
Hotel Martinique, New York, May 14.

Northwest Electric Light & Power Association
Personnel Section, Davenport Hotel, Spokane, Wash., May 16-18; Accounting Section, Boise Hotel, Boise, Idaho, June 14-15.

American Institute of Electrical Engineers
District No. 5 Meeting, Loraine Hotel, Madison, Wis., May 17-19; Summer General Meeting, Royal York Hotel, Toronto, Canada, June 25-29; Pacific General Meeting, Multnomah Hotel, Portland, Ore., August 20-23.

Pennsylvania Electric Association
Relay Committee, Hotel Jermyn, Scranton, Pa., May 17-18; Prime Movers Committee, Penn-Belle Hotel, Bellefonte, Pa., May 24-25; Meter Committee, Iram Temple Country Club, Dallas, Pa., May 24-25.

Missouri Valley Electric Association
Accounting Conference, President Hotel, Kansas City, Mo., May 17-18.

Public Utilities Advertising Association
Annual Meeting, Hotel New Yorker, New York, May 17-19.

★**National Association of Electric Companies**
Annual Meeting, Mayflower Hotel, Washington, D. C., May 18.

Protective Relay Engineers
Annual Conference, Georgia Institute of Technology, Atlanta, Ga., May 18-19.

National Association of Electrical Distributors
Annual Convention, Chelsea Hotel, Atlantic City, N. J., May 20-25.

Edison Electric Institute
EEI Accident Prevention Committee, Hotel Utah, Salt Lake City, Utah, May 21-22; Electrical Equipment Committee, Hotel Biltmore, Los Angeles, Calif., May 28-29; Annual Convention, Shirley Savoy Hotel, Cosmopolitan Hotel, Denver, Colo., June 4-7.

Missouri Association of Public Utilities
Annual Convention, Jefferson Hotel, St. Louis, Mo., May 21-23.

Pacific Coast Electrical Association
Annual Convention, Biltmore Hotel, Los Angeles, Calif., May 21-23.

American Society of Mechanical Engineers
Semi-Annual Meeting, Royal York Hotel, Toronto, Canada, June 11-15.

Canadian Electrical Association
Annual Convention, Algonquin Hotel, St. Andrews, New Brunswick, June 18-21.

American Society for Testing Materials
Annual Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 18-22.

Pacific Electronic Exhibit
Civic Auditorium, San Francisco, August 22-24.

Illuminating Engineering Society
National Technical Conference, Hotel Shoreham, Washington, D. C., August 26-30.

★ Addition this week

YIELDS (%) — Operating Electric Utility Securities

Quality	Bonds			Preferred Stocks			Common Stocks		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
DATE									
1951									
May 3	2.87	2.93	3.04	4.02	4.27	4.59	5.60	6.29	7.09
Apr. 26	2.87	2.94	3.03	4.03	4.30	4.57	5.55	6.26	7.07
END OF QTR.				6					
1st 1951	2.87	2.93	3.00	3.9	4.19	4.52	5.47	6.20	7.13
4th 1950	2.65	2.67	2.78	3.86	4.14	4.51	5.80	6.54	7.44
3rd 1950	2.66	2.67	2.76	3.81	4.08	4.46	5.70	6.54	7.25
2nd 1950	2.68	2.66	2.74	3.79	4.03	4.38	5.38	6.51	7.50

Data: Reis & Chandler, Inc.

Vermont Utility's Plan for Reorganization OK'd

The Securities and Exchange Commission has approved an amended plan for the reorganization of Green Mountain Power Corp, Montpelier, Vt., subsidiary of New England Electric System.

Under the plan, the outstanding funded debt of Green Mountain, held by the public, will remain unchanged. The outstanding common stock, all held by NEES, will not be accorded participation in the reorganized company.

The remainder of the capitalization consists of 46,264 shares of $6 preferred stock, $100 par, held by the public. There are dividend arrears on this stock of $26 a share, or $1,202,864. Holders of the preferred are to receive all of the initial issue of 138,792 shares of new $10 par common stock, on the basis of three common shares for each preferred share held.

The plan also provides for the issuance of an additional 104,094 shares of the new common stock for cash to be offered for public sale. Preferred stockholders will have the right to subscribe for the additional shares on the basis of three common shares for each four shares of common received under the plan in exchange for their preferred holdings.

Proceeds of the sale of the new common stock, estimated at about $1.2 million, will be used to finance construction of generation and transmission facilities and for other purposes including the retirement of $225,000 of outstanding serial notes.

NEES waived any claim it might have for participation in the reorganization in exchange for release by Green Mountain of any claims it might have against NEES arising out of transactions between the two companies in the past. The parent company originally had sought to acquire 15% of the new common stock.

•

Manitoba to Take Over Private Power Plants

The Manitoba government has announced it will take over all privately owned power plants in the province.

The decision will mean purchase of Winnipeg Electric Co and the city-owned electric system of Winnipeg. It will include purchase of six hydro-electric plants on the Winnipeg River, 60 miles east of the city. Manitoba is completing a project at the mouth of the river, 70 miles from Winnipeg.

•

Proposes Financing Firm

Arkansas Power & Light Co's president, C. Hamilton Moses, has proposed the formation of a $2-million equity finance corporation in Arkansas. He has pledged that his company would put up $200,000 of the money. The proposed corporation would buy equity in worthy enterprises and projects providing capital for the development of small industry in Arkansas.

FPC Claims Jurisdiction in Calepco Rate Case

The Federal Power Commission has ordered California Electric Power Co, Riverside, Calif., to cease charging rates other than those on file with the FPC for energy sold to Mineral County (Nev.) Power System and the U. S. Navy for use at its ammunition dump at Hawthorne, Nev.

The commission's finding that the company's rates are subject to regulation reverses an earlier decision by an FPC presiding examiner who ruled the commission had no jurisdiction in the case.

FPC stated that Calepco has been charging Mineral County higher rates that those on file with the commission since October, 1948, increasing the amount Mineral County had to pay by 43% or $15,372.11 from October, 1948, to February, 1950. The Navy refused to pay the increased rates.

Calepco is required to make up the difference in the rates by setting up a special reserve fund for Mineral County and submitting a plan for its disposition to those entitled to it. The utility also must file the rates and charges set forth in its 1943 contract with the Navy, with this schedule effective until it is superseded by new rates prescribed by FPC order.

The FPC, claiming jurisdiction in the case under Part I of the Federal Power Act, found that the energy enters interstate commerce even though Calepco's transmission facilities are all located in California and the lines used to transmit the energy across the state line are owned by others. The FPC held that "it had long been established that a person who transports a product on a portion of an interstate-through journey, even though his portion of the transportation occurs entirely within a state, is engaged in interstate commerce."

Electric Utility Financing—April 28-May 5

Company	Description	Amount of Offering (000)	Offering Price	Yield at Price to Public
Bonds				
Consolidated Edison of NY.	1st and ref mtg "G" 3¼%, 1981 new money	$40,000	102.915%	3.10%
Common Stock				
Ohio Edison	436,224 sh new money	12,760	$29.25	6.84
Long Island Lighting	524,949 sh new money	6,824	$13.00	6.15

SCHEDULED FOR FOLLOWING WEEK

Bonds—Montana-Dakota Utilities, 1st mtg, 1976 new money, $3 million and 1st mtg serial bonds 1952-71 new money, $2 million.

Common Stock—Atlantic City Electric, 117,200 sh new money, $2.3 million.

IN THE INDUSTRY

FISCHER BLACK

Peak loads this year will approach the levels forecast a year ago for December 1953.

This was disclosed in a statement to a Congressional committee May 1 by R. Frank Brower, Consolidated Edison Co official, serving as director of Defense Electric Power Administration's power supply division. Brower told a subcommittee of the House Interior and Insular Affairs Committee that 1951 maximum loads will be 69 million kw. This compares with pre-Korea load estimates that 1953's peak would be 70 million kw.

Peak in December '53 is now expected to be about 82 million kw, Brower testified.

25 Million Kw on Order Through '53

Electric utilities now have more than 25 million kw scheduled for installation during the three-year period through 1953, Depa reports indicate. This is a jump of more than 2 million kw from January calculations which put the orders at 22.8 million kw.

Order boards and Depa figures show only about 6 million kw on order for delivery this year. Loss by the end of first quarter 1952 will be about 1.5 million kw, according to NPA. Boiler tubes have been a serious drawback. But there is good reason to believe that the tube situation will be cleared up in the third quarter of this year. Big items like boiler drums and turbines are not far behind.

Other data indicate that the electrical utilities plan as much as 27 million kw of capacity additions by the end of 1953. So in the short period of three or four months we find requirements and plans for power generating equipment rising rapidly while shortages of materials cut back on deliveries. It would appear that the supply and demand picture would have to be brought much more closely into balance than it appears to be currently.

One straw in the wind has been furnished by the Edison Electric Institute. It has analyzed the current trend in load growth with that of World War II and the peace years 1947 to 1950.

Civilian Use Was Steady in World War II

In the EEI report it is noted that "the chief characteristic of electric power production during World War II was the fact that total civilian use maintained a constant level and the electricity used for war purposes was superimposed upon this base. In the industrial field war production to a considerable extent supplanted the production of peacetime goods, but the growth of residential and commercial use substantially offset this displacement in the industrial use of electricity."

They point out that conditions may be different this time. After making allowance for the increased demand for war purposes, the output has declined more than seasonally for the first four months of 1951. As shown in table in next column, the decline in civilian use since the winter high is 7.7%. This was only exceeded in the slump of 1949.

There will surely be a limit to the demand for more electric power, but the power supply planners should not be fooled by short term statistics. These data from EEI should bear watching, but we are still selling homes and appliances at rates above anything dreamed of in the World War II period. A commensurate amount of load growth should be expected.

Weekly Electric Power Output
Millions of kwhr

Year	Winter High	End of April	Decline	Per Cent
1951	7,099	6,674	425	6.0
Less: War (est.)	140	250	110*	...
1951 Civilian	6,959	6,424	535	7.7
1950	6,062	5,902	160	2.6
1949	5,810	5,304	506	8.7
1948	5,436	5,042	394	7.2
1947	4,857	4,640	217	4.5

* Increase

TECHNICAL NOTES

ARCHER E. KNOWLTON

(*The following items were derived from the indicated papers at the recent ASME meeting in Atlanta*)

Cooling tower outlay for one two-unit plant was estimated to cost 77% more than direct use of river water for condensing purposes. (51-S-5)

River-bank construction costs for foundations, intake, and condenser pit may be greater than for a high-ground cooling tower installation if flood levees raise the level and the hydrostatic pressure to be met. (51-S-5)

Cooling tower insufficiency may sacrifice vacuum and turbogenerator margin unless designed to function under adversely high humidity at time of peak load. (51-S-5)

Cooling towers may incur 2% to 3% higher fuel consumption and 2% to 3% sacrifice in plant capability but still may be justifiable if they avert large outlays for intake structures, storage reservoirs, or tie lines. (51-S-6)

Delignification is a prime cause of deterioration of wood in cooling towers and a corrective would be welcome. (51-S-6)

Evaporation losses of cooling towers average 0.8% for 10F difference and drift (wind blow) seldom exceed 0.1%; that is sacrifice of 1 pound of water will cool 100 pounds 10 degrees F. (51-S-7)

Mechanical draft cooling towers serve 440 Mw on the Houston system and within 2 years another 200 Mw; developmental difficulties have arisen primarily with fan blading, worn reduction gears and oil leaks; wood deterioration has not been serious. (51-S-9)

NEWS ABOUT PEOPLE

Central Illinois Light Co Appoints Schlink President; 3 VPs Named

R. K. DALLAS

E. D. EDWARDS

G. W. HATHWAY

(See Front Cover)

Theodore A. Schlink, vice president and comptroller of Central Illinois Light Co, has been named president of the company. He succeeds J. A. Longley who has been elected chairman of the board.

The utility also has appointed three new vice presidents. They are Roy K. Dallas, service sales manager; Earl D. Edwards, general superintendent of the electric department; and George W. Hathway, manager of the De Kalb division.

In other changes R. N. White, secretary, was elected comptroller; and A. W. Egger, assistant secretary, was named assistant comptroller. New manager of the company's De Kalb-Sycamore division is Ernest W. Stone, formerly electric distribution engineer.

Schlink began his career in the utility business in 1904 as a messenger boy for the Peoria Gas & Electric Co. During the next nine years he worked in the general office, storeroom, and commercial office. When Central Illinois Light Co was organized in 1913 he became treasurer. Schlink assumed the duties of secretary of the utility in 1927 and in 1938 was appointed vice president and comptroller.

Dallas joined Central Illinois in 1927 after having been associated with West Liberty (Ohio) Light & Power Co and Ohio Edison Co. Starting as power sales engineer in the De Kalb division of Central Illinois, he later was named division manager. In 1940, he was transferred to the Peoria division and became service sales manager for all divisions. He now will have charge of all commercial activities.

Assisting Dallas in his new post will be W. W. Babcock, formerly superintendent of power. Q. W. Wellington, construction engineer, will replace Babcock as superintendent of power.

Edwards has been with Central Illinois since 1923 when he was chief engineer in the company's Pekin district. A year later he went to the utility's generating plant in East Peoria as chief engineer. Leaving in 1929, Edwards went to the Commonwealth & Southern System as supervising engineer. He returned to Central Illinois two years later as operating mechanical engineer. In 1941 he was appointed electric superintendent. As vice president he will have charge of all electric and heating operations of the company.

Hathway started with Western United Gas & Electric Co. Aurora, Ill., in 1931. He joined Central Illinois the following year. After working in the gas service department and the service sales department, he was appointed manager of the De Kalb division. He held that position from 1946 until his promotion to vice president. In his new job Hathway will be assigned special work.

•

GE Makes Appointments in Several Sales Divisions

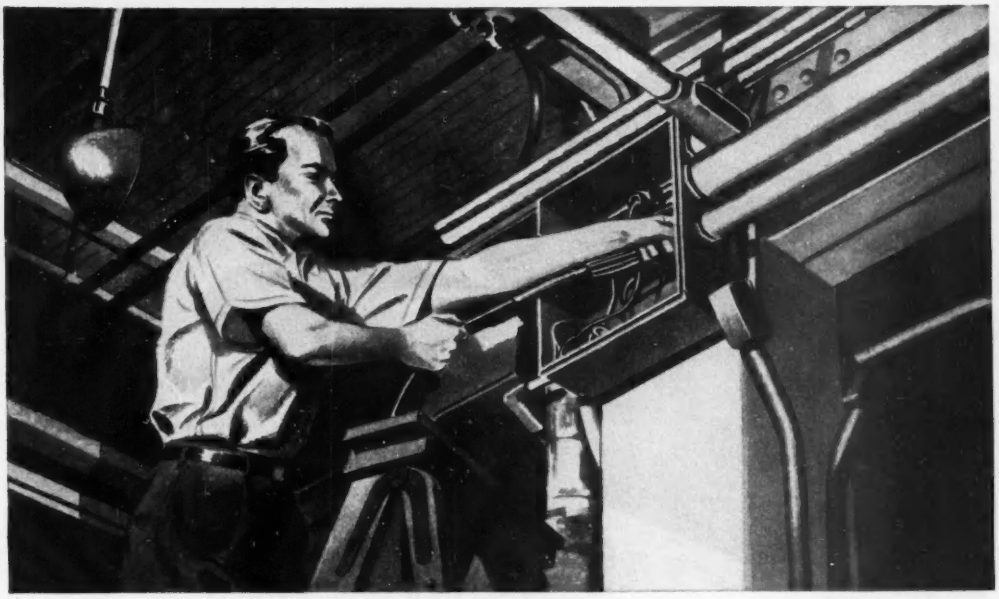
Several recent sales appointments have been reported by General Electric Co.

New assistant to the manager of sales of the Large Motor and Generator Divisions at Schenectady, N. Y., is George P. Patteson. Ralph B. Bodine has been made manager and Robert M. Easley assistant to the manager of the large generator and convertor sales division of the divisions.

Ralph E. Donnelly has been named manager of the Fitchburg, Mass., turbine sales division. C. B. House, Jr, and Lee J. Mohler have been made sales managers of two newly established product line sections in the Small and Medium Motor Divisions. They will head, respectively, the ac motor section and the dc motor and generator section of the Lynn (Mass.) motor sales division.

Patteson joined GE in 1915 and was assigned to the Lighting Department as a commercial engineer. He spent seven years as a sales engineer in the Indianapolis office, then returned to

(*Continued on page* 27)



How to pack 64% more current into your existing raceways

Have you considered meeting today's extra load demands *without* adding new raceways? By installing General Electric Deltabeston* AVA cable in your present raceways, you actually may get as much as 64% more current-carrying capacity than ordinary 60 C cable can provide.

HERE'S WHY: G-E Deltabeston AVA cable is doubly insulated with heat-beating asbestos, plus No. 1799 varnished cambric. This combination permits the cable to operate effectively at higher copper temperatures. Thus, at normal ambient temperatures, AVA cable can safely carry *more current* than ordinary types. The inherent non-aging characteristics of asbestos give the extra advantages of long life and efficient operation.

When you modernize your electric system, look to Deltabeston AVA for savings in materials, dollars, time . . . with no raceways to replace, Deltabeston AVA cable is easy to install. And when planning *new* construction, specify Deltabeston AVA cable, so that you will be prepared for future load increases.

For more information, call on your local G-E distributor. Section W58-527, Construction Materials Department, General Electric Company, Bridgeport 2, Conn.

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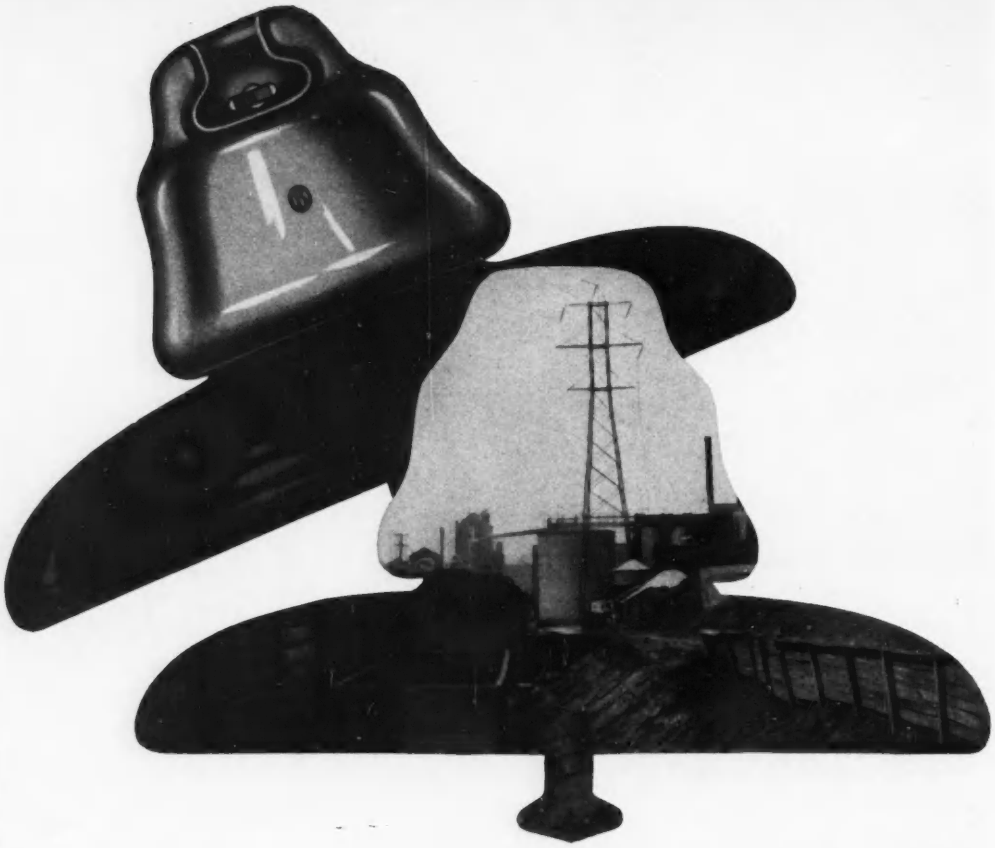
DELTABESTON
Wires and Cables
Built to beat the heat

You can put your confidence in—

GENERAL ELECTRIC



32 YEARS OF FACTS Favor O-B

As a tie between two metropolitan power systems, this 132-kv line penetrates for most of its 35 miles through industrial districts, offering a variety of contamination problems, added to the ordinary demands imposed by a 40-annual-day storm territory.

On this line, O-B suspension insulators have entered their thirty-second year--exceeding the expectations and fulfilling the "hopes" of their owners.

It is significant that the two systems this line connects are consistent O-B users. These companies need look no further than their own internal records for the soundest reason for this choice.

When suspension insulator purchases are made on the basis of solid *facts*, these facts favor O-B. What better basis can there be for making O-B your CHOICE OF INSULATORS?

Ohio Brass

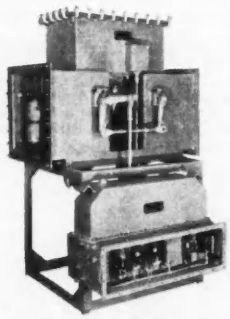
MANSFIELD OHIO, U.S.A.

CANADIAN OHIO BRASS CO., LTD., NIAGARA FALLS, ONT.

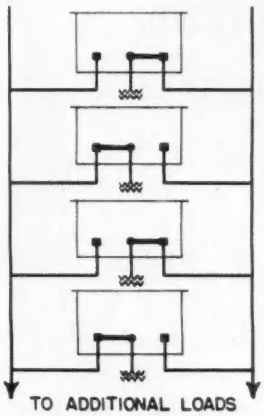
4120-N

RELIABLE DISTRIBUTION WITH RADIAL FEEDERS

Loads Transferred with Automatic Load Break Oil Switches



Typical Automatic Load Break Oil Switch. 400 Ampere, 7,500 Volt. Two single-throw switches with links for air break isolation of load mounted on frame with automatic mechanism.



Reliability of service comparable to that obtained with primary network distribution is possible when two or more radial feeders supply loads through automatic load break oil switches. Automatic transfer of loads when the normal feeder fails assures a high degree of service continuity.

Considerable savings are realized in equipment cost since duplicate transformer capacity is not necessary. Further savings in operation are obtained because automatic switches require no supervision and may be installed in remote locations. They may be operated repeatedly between normal periods of inspection.

In addition to providing an inexpensive and efficient system in congested areas, automatic load break oil switches can provide the same high degree of continuity where long cable runs are necessary between load areas.

A typical system using two radial feeders to supply individual load areas through automatic load break oil switches is shown above. In normal operation half of the load areas are supplied from each of the two feeders. If a failure occurs on either feeder, the automatic switches will immediately transfer the loads supplied from that feeder to the other feeder. When the feeder is restored to service, the switches will automatically transfer to the normal source.

Possibilities for obtaining system flexibility with G & W automatic load break oil switches are practically unlimited. 400 ampere switches rated 600, 7,500, 15,000, and 23,000 volts are made with any internal link arrangement required. Operating mechanisms provide automatic transfer from normal to alternate feeder and automatic return to the normal feeder. Feeders may be balanced or sections of feeders may be isolated by remote operation of automatic mechanism to connect load to desired feeder.

Let us show you how G & W automatic load break oil switches, engineered to your requirements, *can help you obtain maximum system flexibility with minimum equipment expense.*

Use G & W Cable Accessories for
TERMINATING
FUSING—SWITCHING
SPLICING—CONNECTING

POTHEADS

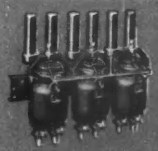
Trouble-Free Cable Terminations

Capnut Style Disconnecting Straight Through

Write for Bulletin AB51

Type "ST-SODERTITE"—*Bulletin AA50*

OIL FUSE CUTOUTS



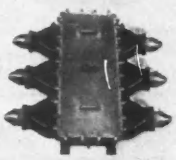
Single or Gang Operated Fuse-Switch Units

Write for Bulletin CA50

CABLE BOXES

Air or Oil Filled

Fuses, Links or Direct Connection



Many Sizes, Styles, Ratings

UNIT SPLICING KITS

Packaged Materials for Properly Designed Joints for all Types of Cables

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See how SYLVANIA cultivates business for your customers

... (and naturally for you)

From a new identifying seal to big National Ads . . . and from Nation-wide TV Shows to personalized direct mail campaigns, Sylvania is going all out to help your good customers . . . the Electrical Contractors.

1. This attractive, new emblem quickly identifies Sylvania Lighting Contractors.

2. Full page ads in a long list of national and business magazines sell Sylvania Long-life Fluorescent tubes and the services of a Qualified Lighting Contractor.

3. The nation-wide TV Show "Beat the Clock" also displays the new lighting contractor emblem to millions, and tells about Sylvania Savings.

4. Now, Sylvania follows up with 3 high-powered, personalized direct mail campaigns: one to Offices, Stores, and Factories; one to Architects; one to General Contractors. These are mailed by Sylvania to every prospect on any electrical contractor's list.

5. A complete kit of business aids is furnished free by Sylvania. These include ad mats, radio spot announcements, news stories, speeches . . . everything to build up business locally for Electrical Contractors.

6. Finally, Sylvania offers a valuable selling guide: "A New Method of Planning and Selling a Fluorescent Installation." It answers scores of questions . . . an invaluable help in clinching sales.

For all the facts about this complete and powerful sales building program, write today to Sylvania Electric Products Inc., Dept. L-7205, 1740 Broadway, New York 19, N.Y.

SYLVANIA ELECTRIC PRODUCTS INC. 1901–1951 50th ANNIVERSARY FIVE DECADES OF PROGRESS

SYLVANIA ELECTRIC

FLUORESCENT TUBES, FIXTURES, SIGN TUBING, WIRING DEVICES; LIGHT BULBS; RADIO TUBES; TELEVISION PICTURE TUBES; ELECTRONIC PRODUCTS; ELECTRONIC TEST EQUIPMENT; PHOTOLAMPS; TELEVISION SETS

News About People

(*Continued from page 22*)

Schenectady to join the Central Station Divisions as a sales engineer handling hydraulic turbine-driven generators, synchronous condensers, and large frequency changer sets. He has been assistant to the manager of the large generator and converter sales division of the Large Motor and Generator Divisions since 1947.

Bodine has been with the company since 1936. He has been responsible for the Pacific and Rocky Mountain Districts. Easley has been a sales engineer for hydraulic turbine-driven generators, synchronous condensers, and large frequency changer sets since 1928.

House, with GE since 1935, has been in motor sales, application engineering for paper, rubber, textile, and lumber industries, and in industrial control sales. He has been assistant to the manager of the Lynn (Mass.) motor sales division since 1948. Mohler has been section leader of the dc motor section of the Lynn motor sales division since 1939. He joined the company in 1939.

Donnelly went to GE in 1937 and served in the turbine sales division at Lynn and Schenectady. In 1946 he was transferred to the Apparatus Department sales office in New York City, where he spent three years as district turbine specialist before becoming a Central Station Division sales engineer there.

•

Schmidt Made President of De Laval Separator

C. B. Schmidt, vice president of De Laval Separator Co, New York, has been elected president of the company. He succeeds George C. Stoddard who is retiring.

Schmidt started with De Laval 29 years ago as a salesman in the New York office. Later he was transferred to the Chicago office and subsequently became manager of the industrial department at Chicago. Following this he served as general manager of De Laval's Western division for 14 years. In 1945 Schmidt was appointed a vice president of the firm.

Stoddard has been with the company for 30 years. Although retiring he will continue to act as advisor.

Wilkinson, Huffine Made VPs by Johns-Manville

Johns-Manville Corp has named two new senior vice presidents. William R. Wilkinson has been appointed vice president in charge of sales and

W. R. WILKINSON

Kenneth W. Huffine has been named vice president for production.

Wilkinson, who succeeds L. M.

K. W. HUFFINE

Cassidy, recently named chairman and chief executive officer of the company (EW, March 19, p 22), became associated with Johns-Manville in 1925 as a sales representative in the New Orleans district. After holding several sales positions in the South, he became assistant district manager at Milwaukee and manager of the building products district office at Philadelphia. For the past five years he has been general merchandise manager of the Building Products Division.

Huffine, who has been in charge of the company's General Engineering Department, succeeds A. R. Fisher who is now president of the company. He has been with Johns-Manville for 26 years and managed plants at Alexandria, Ind., and Waukegan, Ill., before assuming direction of the General Engineering Department.

•

Ralph B. Priestly has been named dean of the Division of Engineering of California State Polytechnic College, San Luis Obispo. He will be responsible for the electrical engineering department as well as seven other engineering departments. He has been head of the college's department of architectural engineering since 1948.

John Mikulak has been appointed assistant to L. C. Ricketts, vice president in charge of manufacturing of Worthington Pump & Machinery Corp, Harrison, N. J. He was formerly senior research engineer for the company.

W. G. Shurgar Jr has been named superintendent of the new Hamilton Moses steam generating plant of Arkansas Power & Light Co at Forrest City, Ark. He formerly was superintendent of the company's Cecil Lynch Plant in North Little Rock.

Roy C. Gerhardt has retired as operations engineer of the western division, Niagara Mohawk Power Corp. He was succeeded by George P. Behan, former Gardenville district superintendent. Gerhardt had been with the company since 1909.

OBITUARY

Maj Gen Lytle Brown

Maj Gen Lytle Brown, 78, former Chief of the Army Corps of Engineers, died at his home near Franklin, Tenn., May 3. He served as Chief of Engineers from 1929 to 1933 and retired in 1936.

Brown was in charge of the construction of Wilson Dam, Muscle Shoals, Ala., in 1919-20. During his Army career, he commanded many districts for the engineers in this country and in the Panama Canal department.

•

James E. Bodette, 58, retired engineer for Toledo Edison Co, died April 22. He served the company 27 years before he retired last May.

MANUFACTURERS and MARKETS

Alcoa to Build Plant at Wenatchee; Chelan PUD, BPA to Supply Power

A $45-million aluminum-reduction plant will be constructed by Aluminum Co of America at Wenatchee, Wash. Power for the project will be supplied by the Chelan County PUD and Bonneville Power Administration.

The plant will produce 170 million lb of pig aluminum annually and will require 180,000 kw of power. The company expects the plant to be in operation in 15 months.

PUD to Supply 120,000 Kw

Wenatchee was selected as the site for the plant after Alcoa reached agreements with BPA and the Chelan PUD for the supply of power. Under a contract signed April 26 the PUD has agreed to supply 120,000 kw. Some 60,000 kw of interruptible power will come from BPA lines.

At the time it signed the contract with Alcoa, the PUD concluded an agreement with Puget Sound Power & Light Co for the lease of space to install six 25,000-kva generators at Puget Power's Rock Island Plant near Wenatchee. The lease runs 50 years.

FPC Directs Construction

Three days after the contract with Alcoa was signed the Federal Power Commission directed the construction of the six units by the PUD at Rock Island Dam.

Power from the first of the new generators is expected to be available Nov. 1, 1952. The other five will be installed at 45-day intervals. Bonneville will provide power to the Alcoa plant until the PUD power is available. Bonneville will take over more of the Alcoa load in 1955 and all of it in 1957, freeing the Rock Island Plant for general use.

Beginning Jan. 1, 1952 and up to July 1, 1955, Puget Power will receive from the PUD as rental for use of its facilities $82,500 a year, plus 50% of the revenue (minus certain stated costs having to do with the transmitting of dump energy) received by the PUD in excess of that obtained from Alcoa. After July 1, 1955 the company will receive $480,000 a year. Puget Power will operate the additional units on a cost allocation basis.

Alcoa will pay 2 mills per kwhr for its Bonneville power and about 2.25 mills for power purchased from the PUD.

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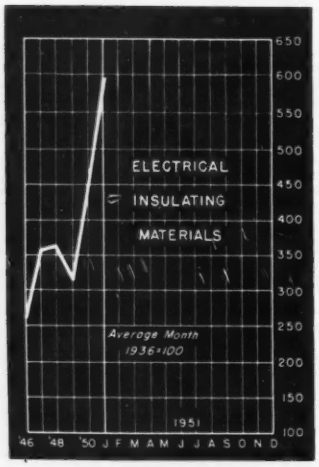
Insulating Materials Sales Rise Again in January

Sales of electrical insulating materials continued to climb upward in January, rising 5% above the total for December, 1950.



The index of sales billed compiled by the National Electrical Manufacturers Association reached 595 in January compared with 564 for December. Sales for the month were 72% above those recorded in January of last year when the index stood at 345.

GE 1st Quarter Sales Set Record, Net Drops

General Electric Co reported that sales and income before taxes during the first quarter of 1951 reached record levels. Net income, however, was down 5% from that earned during the first quarter last year. Total income for the first quarter was $107,083,525 in 1951 and $65,411,920 in 1950.

Net profit for the quarter totaled $34,996,395 as compared with $36,858,391 for the same period last year. The drop was attributed to higher taxes. Profits for the first quarter this year were equivalent to $1.21 a common share. The figure for last year was $1.28.

Net sales during the first quarter of 1951 amounted to $569,688,610. This represents an increase of 36% over 1950's first quarter volume of $418,449,611.

MANUFACTURING BRIEFS

Westinghouse Electric Corp plans to build a multi-million dollar electronic tube manufacturing plant near Bath, N. Y., in Steuben County. The plant will cover three acres of a 70-acre site. It will employ about 2,000 persons. After the national emergency Westinghouse plans to convert the plant to produce radio and television tubes.

An 18-page booklet has been released by the Kellex Corp, New York, describing its facilities in the atomic energy field and outlining its work for the Atomic Energy Commission and the armed services. Entitled, "Engineering New Fields," the booklet can be obtained by writing the Kellex Corp, 233 Broadway, New York 7, N. Y.

Trumbull Electric Manufacturing Co will construct a new building adjacent to its main plant at Plainville, Conn. The new structure will house the two

largest Plainville fabrication units, receiving facilities, and finishing units. It will have its own trucking well, rail shed, boiler plant, and power substation.

Dearborn Chemical Co, Chicago manufacturer of rust preventives, has moved into new offices in the Merchandise Mart in Chicago.

SALES ASSIGNMENTS

COMPANY STAFFS

Sylvania Electric Products, Inc, Salem, Mass., has organized a new division office at Dallas, Texas, to be headed by T. J. Ewbank, former field representative. The Dallas area previously was serviced out of Kansas City.

Westinghouse Electric Corp has appointed James H. Burson lighting specialist in charge of street, highway, and aviation lighting equipment sales in northern and central California and western Nevada. He succeeds Fred J. Wellhouse who has retired. Burson will make his headquarters in San Francisco.

Minneapolis-Honeywell Regulator Co has named three new branch managers for its Micro Switch Division. They are Gerald G. Boyle who has been appointed head of the New York office; Kenneth J. Cumming, Boston office manager; and Richard DeStefano, Detroit manager.

REPRESENTATIVES

Sunbeam Lighting Co, Calif., has appointed General Lighting Co, Inc, as its sales representative in the northeastern area of the United States. The territory comprises New York, New Jersey, Connecticut, Rhode Island, Maine, New Hampshire, Vermont, Massachusetts, and eastern Pennsylvania.

W. N. Matthews Corp, St. Louis, has appointed B. H. McCoin, 1416 Agawela Ave, Knoxville, Tenn., as representative for Alabama, and all of Georgia except the extreme southern part of the state. He is and will continue as representative in Tennessee. The company has also named J. A. Pollock, P. O. Box 62, Bainbridge, Ga., representative in Florida and the southern part of Georgia.

Cornish Wire Co, New York, has appointed Charles E. Scholl, 67 Ash St, Bridgeport 5, Conn., New England representative. His territory includes the New England states with the exception of Connecticut.

Metal Prices
May 7, 1951

COPPER, Conn. V., lb	$ .24½
LEAD, N. Y., lb	.17
ZINC, prime Western, E. St. Louis, lb	.17½
TIN, Straits, qual. N. Y., lb	1.42
ALUMINUM, ingot, base price	.19
NICKEL, base price	.50½
STEEL, billets, Pitts., ton	56.00
STEEL, scrap, No. 1 heavy Pitts., ton	45.00

NEW ELECTRICAL CONSTRUCTION

A weekly selection of U. S. electrical construction projects announced by private and government utility systems involving more than $70,000. Also listed are major industrial and construction jobs where electrical work is indicated or implied

UTILITIES

Proposed Construction

California—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., transformers, etc. for Folsom Power Plant, Central Valley Proj., Spec. DS-3399. L. N. McClellan, ch. engr.

Calif., Barstow—Dpt. Navy, Eleventh Dist., San Diego, main sub-station, NOY 24144, Spec. 26437, electrical sys. exten., NOY 24413, Spec. 26698. Plans deposit $1.

Calif., Silver Gate—San Diego Gas & Electric Co., 861 6 Ave., San Diego, Calif., generating station expansion 50,000 kw. turbo-generator. **$3,000,000.**

Calif., Vallejo—P. Wks., Office, Twelfth Naval Dist., Federal Office Bldg., San Francisco, Calif., substation platform and electrical duct lines serving Berth 24 at U. S. Naval Shipyard, Mare Island, Spec. 26607 NOY 24311. Plans deposit $10.

Ill., Chicago—City, City Hall, Zone 2, street lighting, **$8,000,000.**

Ill., Harvey—Wyman-Gordon Co., 147 and Wood Sts., plans by Schmidt, Garden & Erikson, 104 S. Michigan St., Chicago, Zone 3, power house addns. **$1,000,000.**

Ill., Wood River—Illinois Power Co., C. A. Steinhauser, div. mgr., 18 E. Lorena St., construct fourth sect. addn. 100,000 kw generating plant. **$30,000,000.**

Kansas—P. R. & W. Electric Co-operative Assn., Wamego, 41 mi. rural distr. lines, headquarters, sys. imprvs., Pottawattamie Co. **$140,000.** Frank Horton & Co., Lamar, Mo., consult. engrs.

Ky., Fort Campbell—U. S. Eng., 830 W. Broadway, Louisville, Zone 3, 19 ft. diam., 80 ft. high, concrete control tower, appurtenant sewers, water lines, electrical distr. connection and drives, Campbell Air Force Base, Eng. 15-029-51-47.

Mich., Battle Creek—Veterans Admin., Munitions Bldg., Wash., D. C., rebuilding electric pole lines, Veterans' Hospital, Fort Custer.

Missouri—Cuivre River Electric Co-operative, Troy, acquisition lines and imprvs., Lincoln Co. **$325,000.** Michael Drazen & Assoc., Forsythe Blvd., St. Louis, consult. engrs.

Montana—Bureau Reclamation, Dpt. Interior, Bldg. 1A, Denver Federal Center, Denver, Colo., furnishing, del. f.o.b. cars shipping point, or f.o.b. cars Glendive, fabricated structural steel for Dawson sub-station, Fort Peck Proj., Spec. DS 3397, L. N. McClellan, ch. engr.

Nebraska—Bonhomme-Yankton Electric Ass'n., Tabor, S. D., rural distr. lines and sys. imprvs., Bon Homme and Yankton Counties. **$387,000.** REA allot. Buell & Winter, 508 Insurance Exchange Bldg., Sioux City, Ia., consult. engrs.

O., Petersburg—Bd. Educ., Springfield Twp. School Dist., Petersburg (1) electrical work for addn. to New Springfield School; (2) electrical work for addn. to New Middletown School; (3) alterations to high school. Plans deposit $15. Arsene Rousseau, 213 Mahoning Bank Bldg., Youngstown, archt.

Oregon—California-Oregon Power Co., Medford, Unit No. 1, 30 ft. dam, 3.3 mi. conduit on Clearwater River, **$2,500,000;** Power Unit No. 2, 26 ft. dam, 6 mi. conduit, on Clearwater River, **$2,500,000;** State permission asked for power project Big Bend No. 2; 52 ft. dam on Klamath River, 2-generator power house, **$8,173,980.** A. C. Cummins, Medford, Ore., engrs. engrs.

South Dakota—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., furnishing, del. f.o.b. cars shipping point, f.o.b. cars at Mitchell, galvanized-steel double-circuit towers and appurtenance for the Oahe-Fort Randall-Sioux City 230 kilovolt transmission lines, Transmission Div. Missouri River Basin Proj. Inv. No. DS-3391.

Washington—Bonneville Power Admin., P. O. Box 3537, Portland, Ore., sub-station at new Alcoa plant, **$1,700,000;** enlarge Columbia substation, **$1,200,000;** two 111-kv lines between sub-stations, **$100,000.**

Wis., Janesville—Wisconsin Power & Light Co., 122 W. Washington Ave., Madison steam generating plant, **$5,000,000.** Sargent & Lundy, 140 S. Dearborn St., Chicago, 3, Ill., consult. engrs.

Wyoming—Bureau Reclamation, Dpt. Interior, P. O. Box 280, Reclamation Center, Casper, constr. Rowlins sub-station, Kendrick Proj., Spec. 703C-186.

Alberta and Quebec—Trans-Canada Pipelines Ltd., Canadian subsidiary of Delhi Oil Co., c/ C. W. Murchison, pres., 1315 Pacific St., Dallas, Tex., 2200 mile natural gas transmission line across Canada-east from Alberta oil country to Montreal, Que. **$250,000,000.** DeGolyer & MacNaughton and Oklahoma Pipe Line Eng. Co., c/o Bart Bldg., Dallas, Tex., U. S. A., consult. engrs.

Low Bidders & Contracts Awarded

Ala., Tallassee—Alabama Power Co., 600 N. 18 St., Birmingham, Ala. Owner Builds. Approx. **$100,000.** POWER HOUSE addn. at Martin Dam.

California-Oregon Power Co., Medford, Ore. Force Account. **$2,200,000.** Dams on Fish Creek, Slide Creek and at Soda Springs, Douglas Co. OREGON. A. C. Cummins, Medford, engr.

Ill., Moline—Fuel Economy Co., New York Bldg., Minneapolis, Minn., Contract Awarded, **$950,000,** POWER PLANT, Iowa-Illinois Gas & Electric Co., Moline, Ill. Awarded Apr. 16.

Ill., Chicago—John Griffiths & Son Co., 228 N. La Salle St., Chicago, 1, Ill., Contract Awarded, **$20,000,000.** 3d and 4th of Ridgland GENERATING STATION, STICKNEY, ILL. Commonwealth Edison Co., 72 W. Adams St. Naess & Murphy, 80 E. Jackson St., Chicago, 4, archts. Awarded Apr. 17.

Ind., East Chicago—F. H. McGraw Co., 109 N. Wabash St., Chicago 2, Ill., Contract Awarded. **$550,000,** POWER PLANT. Linde Air Products Co., 4400 Kennedy St., East Chicago, Ind. Awarded Apr. 16.

Missouri—Utilities Constr. Co., Exchange Bldg., Nashville, Tenn. Low Bidder. **$672,580.** 57 mi. 161 KV transmission line Springfield to Carthage. Proj. ISPA 404, Southwestern Power Admin., Douglas G. Wright, Admin. Petroleum Bldg., Tulsa, Okla. Bids Apr. 11.

N. J., Trenton—Daniel J. Cronin, Inc., 717 S. Grange Ave., Newark, N. J. Low Bidder. **$6,580,000,** high presure BLOWER and TEST wing, Turbine Laboratory, Dpt. Navy, Navy Bldg., Wash., D. C. Bids Apr. 25.

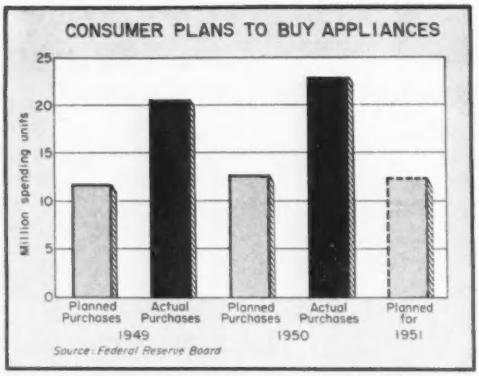
Oklahoma, Sequoyah Co.—Kohler, Stover & Ivey and Wyche & Hammond, 7635 Bryn Mawr St., Dallas, Tex. Low Bidder. **$2,282,000,** est. $2,500,000, rein.-con. power house, installing electrical equip. Tenkiller Ferry Dam on Illinois River, Inv. 34-066-51-60, near Gore. U. S. Eng., Box 61, Tulsa, Okla. Bids Apr. 20.

Oregon—Allis-Chalmers Mfg. Co., 1126 S. 70 St., Milwaukee, Wis., Low Bidder, **$178,860,** Schedule A***Westinghouse Electric Co., 309 S.W. 6 St., Portland, Ore., **$138,711.** Schedule B, delivering 15 kv bus circuit breakers, reactors and generator grounding equip. for Detroit Dam power house. CIVENG 35-026-51-194. U. S. Eng., Pittlock Block, Portland, Ore.

Tenn., Covington—Forcum-James, Dyersburg, Tenn. Contract Awarded. Approx. **$500,000.** brick, concrete, steel POWER PLANT. City, Bd. Comrs., Covington, Tenn. Bids Apr. 17, awarded Apr. 26.

Va., Chester—Stone & Webster Engineering Corp., 49 Federal St., Boston, Mass., Low Bidder, Approx. **$1,280,000.** POWER PLANT addn. Virginia Electric & Power Co., 7 and Franklin Sts., Richmond, Va.

Electrical Business Outlook



NEW SURVEY by Federal Reserve Board shows almost as many families planning to buy electrical appliances this year as last. Actual spending usually runs very much higher than planned

Upturn in Appliance Sales?

Last week appliance dealers got the best news they've had in months. The Federal Reserve Board's annual survey of consumer spending plans came out. And it shows that almost as many families plan to buy some electric appliance this year as were planning on it a year ago.

That doesn't mean people are in the same free spending mood now they were right after Korea. The survey was taken in January and February both years. But it does indicate a demand for nearly as many appliances as were sold during the full year 1950.

A good bit of the buying may have been done in January and February. Those were the months when retail sales boomed. Consumers interviewed in the survey mostly said they'd buy during the first half of this year. That was logical with everyone expecting shortages. Does it mean the heavy buying is all done?

Second Half of Year Usually Booms Sales

Not at all. In the last three years, consumers have bought more than they originally planned to (chart). In each case, it was the second half that turned out better than expected. And that's likely to happen this year. Here's why:

Incomes are now rising faster than prices. Wages and salaries are increasing about $2 billion a month in the absence of effective wage control. There won't be an increase in personal taxes before October, at the earliest. But appliance prices are now controlled.

This will reverse the situation of early 1951. In February, when the Federal Reserve survey was taken, prices had been rising as fast as incomes. Of the families interviewed, 7 out of 10 thought prices were going up. Only 4 out of 10 expected to make more money.

When families find they really have more money, they're likely to raise spending plans—especially if there's still a good supply of appliances at controlled prices.

The survey has other facts about the position of consumers which make cheerful reading. As many families as a year ago have cash in the bank. Nearly half are earning more than last year. Almost as many plan to buy houses, although a smaller proportion will be new houses.

All this adds up to a strong appliance market, getting stronger in the second half-year, just when production is slated to show its first substantial decline. So the heavy inventories which have been hanging over the trade may not be such a bad thing after all.

There's no doubt about it. Inventories are terrific. At the end of March, department stores had 3 times as many television sets as last year. Stocks of other major appliances were up about 80%. And sales were running lower.

Consequently, a lot of items have backed up on wholesalers and manufacturers. It's been estimated, for example, there are 2 million TV sets in the pipelines, counting factories as well as dealers. Add inventories like this onto higher production than expected, and total supply of appliances should be within 15% of 1950.

Can all these be sold? The big stores don't appear very worried. They've cut prices some. But there's no sign of panicky liquidation. The idea is to have these stocks around when manufacturers deliveries drop off in coming months. That's what makes this situation less dangerous than what we had in 1949.

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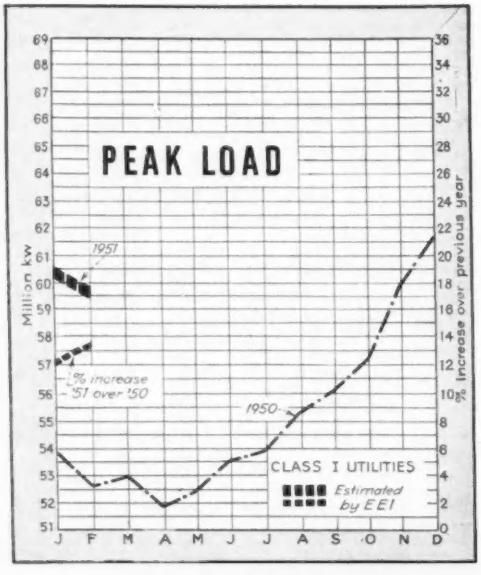
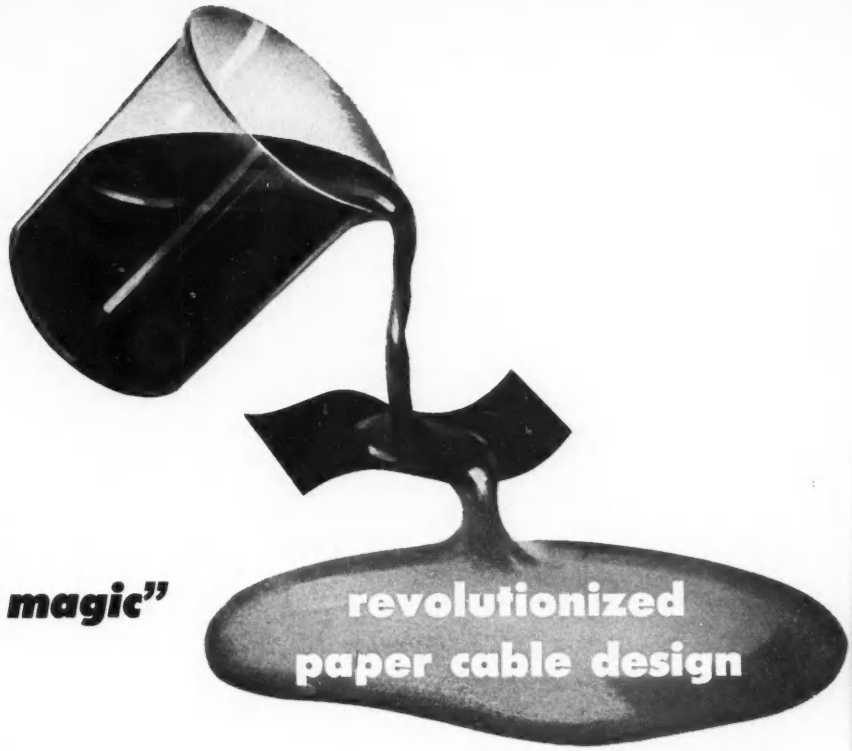




how "black magic" revolutionized paper cable design

Everybody knew that in paper cable the oil deteriorated under heat and electrical stresses.

But recalling that carbon black can purify oil and tends to stabilize it, Anaconda cable research men asked themselves why it couldn't do the same in paper cable.

They found it could and did!

Today ANACONDA Type CB* (Carbon Black) Power Cable offers the best power cable service that money can buy.

Not only does it contain carbon black, but also it can be made with resilient binder and sheathed with F-3**, the superior ANACONDA Alloy-Lead Sheath that is so resistant to slow-bending fatigue, creep, burst, abrasion, vibration and aging.

Net result: you get maximum cable life and economy.

Want more facts? Proof? Ask your nearest Anaconda Sales Office. Anaconda Wire & Cable Company, 25 Broadway, New York 4, New York.

51347

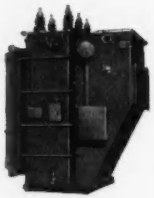
*CB—Carbon Black
(U. S. Patent 2,102,129)
Reg. U. S. Pat. Off.
**F-3—Arsenic-Lead Alloy
(U. S. Patents 2,300,788 and 2,374,755)
Reg. U. S. Pat. Off.

The right cable for the job **ANACONDA®**

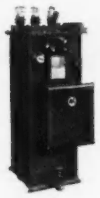
WIRE AND CABLE

7 Great Features

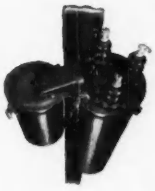
ALLIS-CHALMERS 5/8% STEP REGULATORS



AFR
Three phase regulator, sizes through 69 kv, 2500 kva.



DFR
Single phase regulator, sizes through 6900 v, 250 kva.



JFR
Single phase regulator, 11.4 and 38.1 kva, 7620 v.

		AFR	DFR	JFR
1	5/8% Steps	✓	✓	✓
2	Close regulation (±1 volt band)	✓	✓	✓
3	Easy control adjustment. The same type control used on all sizes	✓	✓	✓
4	Close average voltage (maintained by voltage integrator)	✓	✓	✓
5	Long life contacts of liberal design to withstand hundreds of thousands of operations	✓	✓	✓
6	Tap changing drive mechanism with balanced spring action to eliminate shock . . . operates under oil for long trouble-free life	✓	✓	✓
7	Unit construction to simplify your maintenance requirements.	✓	✓	✓

FOR ALL REGULATION JOBS — from an 11.4 kva regulator on a small feeder to the biggest 2500 kva three phase unit — Allis-Chalmers 5/8% step regulators provide all seven of the quality features checked off above.

That's why you can count on Allis-Chalmers for regulation that helps boost capacity, increase revenue, and improve customer good will.

In addition to these important advantages, the single phase 5/8% step regulators require only 1/3 the exciting current of older types of single phase regulators. The low exciting current releases system capacity for useful loads.

Get the complete facts on how Allis-Chalmers 5/8% step regulators can help you from your nearest Allis-Chalmers district office, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3370

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